INDEX

Vol 31 Wireless Engineer 1954

	MONTH PAGE
ABSTRACTS AND REFERENCES (*See Special Index to be published with March 1955 issue*)	
Amplifier, Constant-H.T.-Current, (*Editorial*) Feb. 29; (*Correspondence*)	Apr. 105
—— Formulae, Cathode-Coupled, T. W. Brady, May 111; (*Correspondence*)	Aug. 222
Amplifiers, Bandpass, Z. Jelonek and R. S. Sidorowicz	Apr. 84
——, General Properties of Electromagnetic, D. A. Bell	Dec. 310
——, L. F. Compensation for Video, J. E. Flood July 175,	Aug. 214
——, Multiloop Feedback, O. P. D. Cutteridge	Nov. 293
Analogues of an Ionized Medium, R. N. Bracewell	Dec. 320
Armstrong, Edwin H. (*Editorial*)	Mar. 53
Automatic Tuning for Primary Radar, S. Ratcliffe May 122, June 153,	July 187
BANDPASS Amplifiers, Z. Jelonek and R. S. Sidorowicz	Apr. 84
Boltzmann Interferometer, J. L. Farrands and J. Brown	Apr. 81
BOOKS AND TECHNICAL PUBLICATIONS:	
Amplification and Distribution of Sound (3rd Edition), A. E. Greenlees	Oct. 284
Applied Electronics Annual 1953-1954, Edited by R. E. Blaise	July 194
Bessel Functions and Formulae, Compiled by W. G. Bickley	May 137
British Plastics Year Book 1954	May 137
BRITISH STANDARDS:	
Adhesive Insulating Tape for Electrical Purposes	Apr. 108
Annual Report 1953-54	Nov. 306
Calibration of Earphones of the External Type	Apr. 108
Characteristics and Performance of Apparatus for Measurement of Radio Interference	May 138
Code of Practice on the Use of Electronic Valves (Parts 1 and 2)	May 138
Cotton Covered Round Copper Wires (Metric Units)	May 138
Determination of Power Factor and Permittivity of Insulating Materials by the Method of Hartshorn and Ward	May 138
Electrical Indicating Instruments	May 138
Electronic-Valve Bases, Caps and Holders	Apr. 108
Glossary of Terms for the Electrical Characteristics of Radio Receivers	May 138
Limits of Radio Interference	May 138
Magnetic Tape Sound Recording and Reproduction for Programme Interchange	Apr. 108
Preferred Numbers	Feb. 52
Preferred Values and Associated Tolerances for Resistors and Capacitors for Telecommunication Equipment	Nov. 306
Recommendations for Ascertaining and Expressing the Performance of Loudspeakers by Objective Measurements	Nov. 306
Supplement No. 3 (1953) to British Standard for Graphical Symbols for Telecommunications	Apr. 108
Synthetic Resin (Phenolic) Moulding Materials	Nov. 306
Tapes and Spools for Commercial and Domestic Magnetic Tape Sound Recording and Reproduction	Nov. 306
Thermosetting Synthetic-Resin Bonded-Paper Insulating Sheets for use at Radio Frequencies	May 138
Yearbook, 1954	Nov. 306
CABMA Register, 1954-55	Sept. 252
Circuit Theory of Electron Devices, E. Milton Boone	May 136
Complex Variable Theory and Transform Calculus (2nd Edition), N. W. McLachlan (*Review*)	Apr. 107
Cours Pratique de Télévision, Vol. 1, F. Juster	May 137
Cours sur les Ondes Ultra-Courtes, Y. Place	Jan. 28
Data and Circuits of Television Receiver Valves, J. Jager	Mar. 78
Dielectric Aerials, D. G. Kiely	May 137
Discrete Sources of Extra-Terrestrial Radio Noise	July 194
Einführung in die Mikrowellen, H. H. Klinger	May 137
Einschwingvorgänge, Gegenkopplung, Stabilität. Theoretische Grundlagen und Anwendungen, Johannes Peters (*Review*)	Apr. 106
Electrical Transients, L. A. Ware and G. R. Town (*Review*)	Sept. 251
Electromagnetic Field and its Engineering Aspects, G. W. Carter (*Review*)	June 165
Electronic Engineering Principles (2nd Edition), John D. Ryder	May 136
Electronic Musical Instrument Manual (2nd Edition), Alan Douglas	Sept. 252
Electronics, A. T. Starr (*Review*)	Nov. 307
Enregistrement des Sons, J. Landrac	May 137
F.B.I. Register of British Manufacturers, 1954	Jan. 28
Fields and Waves in Modern Radio (2nd Edition), Simon Ramo and John R. Whinnery (*Review*)	Sept. 251
Filtres a Cristaux Piézoélectriques, D. Indjoudjian and P. Andrieux	May 137
Flywheel Synchronization of Saw-Tooth Generators, P. A. Neeteson (*Review*)	Jan. 27
Fundamentals of Electronic Motion, Willis W. Harman (*Review*)	Mar. 77
Handbook of Industrial Electroplating (2nd Edition), E. A. Ollard and E. B. Smith	July 194
Higher Transcendental Functions	May 137
Industrial Electronic Engineering, Wells L. Davis and Herman R. Weed	Oct. 284
Industrial Electronics, Dr. R. Kretzmann	Sept. 252
Introduction à l'Électronique, P. Grau	May 137
Introduction to Ultra-high-frequency Radio Engineering, Stephen A. Knight	Oct. 284
Laplace Transforms for Electrical Engineers, B. J. Starkey	July 194
Low Frequency Amplification, Dr. N. A. J. Voorhoeve (*Review*)	Apr. 106
Magnetic Amplifier (2nd Edition), J. H. Reyner	May 137
Magnetic Amplifier Circuits, William A. Geyger (*Review*)	Nov. 307
Magnetic Amplifiers, George M. Ettinger	May 137

BOOKS—*continued* MONTH PAGE

Magnitude of the Radio Interference in the Television Band from Ignition Systems of Motor Vehicles, A. H. Ball and W. Nethercot .. .. May 137
Manual for Plastic Welding, Vol. II, Polyethylene, G. Haim and J. A. Neumann .. .. May 137
Microwave Spectroscopy, M. W. P. Strandberg .. .. May 137
NATIONAL BUREAU OF STANDARDS:
Effective Radio Ground-Conductivity Measurements in the United States, R. S. Kirby, J. C. Harman, F. M. Capps and R. N. Jones .. .. July 194
Magnetic Fields of Cylindrical Coils and Annular Coils .. .. May 138
Optical Image Evaluation .. .. July 194
Simultaneous Linear Equations and the Determination of Eigenvalues .. May 138
Statistical Theory of Extreme Values and Some Practical Applications, E. J. Gumbel .. .. July 194
Table of Coefficients for the Numerical Calculation of Laplace Transforms .. May 138
Table of Natural Logarithms for Arguments between Zero and Five to Sixteen Decimal Places .. .. May 138
Table of Secants and Cosecants to Nine Significant Figures at Hundredths of a Degree .. .. July 194
Tables of 10^x .. .. May 138
Tables of Lagrangian Coefficients for Sexagesimal Interpolation .. .. July 194
Oscilloscope at Work, A. Haas and R. W. Hallows .. .. July 194
Practical Wireless Circuits (16th Edition), F. J. Camm .. .. Sept. 252
Prediction of Optimum Traffic Frequencies, Ing. Prof. Rufino Gea Sacasa (*Review*) .. July 193
Principles of Electronics, L. T. Agger .. May 136
Principles of Transistor Circuits, Edited by Richard F. Shea (*Review*) .. .. Feb. 51
Probability and Information Theory, with Applications to Radar, P. M. Woodward (*Review*) .. .. Mar. 77
Problèmes et Exercices D'Électricité Générale et de Machines Électriques, P. Janet .. .. May 137
Proc. I.E.E. Index 1942-51 .. .. .. July 194
Radio Amateur's Handbook 1954, A.R.R.L. May 137
Radio Control of Model Aircraft, G. Sommerhoff .. .. May 137
Radio Interference from Motor Vehicles, A. H. Ball and S. F. Pearce .. .. May 137
Radio Laboratory Handbook (6th Edition), M. G. Scroggie .. .. Sept. 252
Radio Receiver Design, Part 1, K. R. Sturley (*Review*) .. .. Apr. 107
Radio Research 1953 .. .. .. July 193
Radio Valve Data (4th Edition) .. .. Sept. 252
Relays for Electronic and Industrial Control, R. C. Walker (*Review*) .. Mar. 77
Science in the U.S.A. 1953 .. .. .. May 137
Scintillation Counters, J. B. Birks (*Review*) Feb. 51
Static Electrification, Institute of Physics Mar. 78
Statistical Methods in Electrical Engineering, D. A. Bell (*Review*) .. .. July 193
Statistics for Technologists, C. G. Paradine and B. H. P. Rivett (*Review*) .. .. Feb. 51
Telecommunications, A. T. Starr (*Review*) Nov. 307
Television Receiver Servicing. Vol. 1, Time-Base Circuits, E. A. W. Spreadbury May 137
Text-Book of Radar (2nd Edition), C.S.I.R.O. Aust. .. .. Oct. 284
Théorie des Fonctions Aléatoires, A. Blanc-Lapierre and Robert Fortet .. May 137

BOOKS—*continued* MONTH PAGE

Thermionic Valves, A. H. W. Beck .. July 193
Transistoren, Dr. M. J. O. Strutt (*Review*) June 166
Ultra High Frequency Propagation, Henry R. Reed and Carl M. Russell .. May 136
Wireless and Electrical Trader Year Book, 1954 .. .. May 137
Wireless Engineer Editorials .. .. Aug. 197
Wireless World Diary 1955 .. .. .. Nov. 308
Year that made the Day, B.B.C. .. .. May 137
Brit.I.R.E. Electronics Convention .. .. Apr. 104
—— President .. .. Oct. 281

CATHODE-COUPLED Valves, T. W. Brady, May 111; (*Correspondence*) .. Aug. 222
Cathode-Ray Beams, Negative Ions in, (*Editorial*) .. .. Aug. 195
Circuit Problem (*Correspondence*) Jan. 27, Mar. 76
Circuits, High-Q Coupled Tuned, Haim D. Polishuk .. .. Mar. 55
Colebrook, F. M., Birthday Honours; Obituary .. .. July 194
Constant-H.T.-Current Amplifier (*Editorial*) Feb. 29; (*Correspondence*) .. .. Apr. 105
CORRESPONDENCE:
Cathode-Coupled Amplifier Formulae, Harry Stockman .. .. .. Aug. 222
Circuit Problem, R. N. Bracewell, Jan.27; C. J. Bouwkamp .. .. .. Mar. 76
Constant-H.T. Current Amplifier, Eric L. C. White .. .. Apr. 105
External Field of a Widely-Wound Toroid, P. Hammond .. .. Oct. 282
Harmonic Distortion and Negative Feedback, R. O. Rowlands; E. E. Zepler .. Nov. 306
Matching Discontinuities in Waveguides, Prem Swarup .. .. Feb. 42
Microwave Wide-Angle Scanner, Alfred S. Gutman .. .. Jan. 27
Output Impedance Theorem, Harry Stockman .. .. Mar. 76
Rotating Observers, E. G. Cullwick .. Nov. 306
Spectrum Equalization, J. Peters; G. G. Gouriet .. .. Apr. 105
Transmission-Line Matching System, Leo Young .. .. Apr. 105
Couplings, Design of Video, Dharmajit Gupta Sarma .. .. Dec. 327
Cubics and Quartics, Solution of, A. C. Sim Nov. 294
Current-Noise in Composition Resistors, D. A. Bell and K. Y. Chong .. .. June 142

DELAY Lines, Pulse Frequency Multiplication and Division by, Dr. techn. Heinz Zemanek .. .. Oct. 264
Design of Video Couplings, Dharmajit Gupta Sarma .. .. Dec. 327
Direct-Coupled Transitron, F. A. Milne and E. J. Miller .. .. Sept. 234
Direction Finding, H.F., S. B. Smith and H. G. Hopkins .. .. Jan. 11
Distortion in Rectifier Modulators, Intermodulation, D. G. Tucker .. .. June 145

E-H Surface Wave, A. E. Karbowiak .. Mar. 71
EDITORIALS:
Armstrong, Edwin H. .. .. .. Mar. 53
Constant-H.T.-Current Amplifier, Feb. 29; (*Correspondence*) .. .. Apr. 105
Electromagnetic Induction from Different Points of View .. .. June 139
External Field of a Widely-Wound Toroid, June 141; (*Correspondence*) .. .. Oct. 282
Faraday Effect in Magnetic Materials .. Nov. 285
Ferrite-Core Inductors .. .. .. Jan. 1
Heaviside-Lorentz Network Theorem, May 109, July 168

EDITORIALS—*continued* MONTH PAGE

Improved Morphology of Electromagnetics .. .. July 167
Life of Transmitting Valves .. .. Dec. 309
Lorentz, H. A. .. .. Apr. 79
Negative Ions in Cathode-Ray Beams .. Aug. 195
Rotating Observers, Sept. 223, Nov. 286; (*Correspondence*) .. .. Nov. 306
Teaching of Electromagnetism .. .. Oct. 253
Editorials, Index to *Wireless Engineer*, Jan. 1926-May 1954 .. .. Aug. 197
Electromagnetic Amplifiers, General Properties of, D. A. Bell .. .. .. Dec. 310
—— Induction from Different Points of View (*Editorial*) June 139. See also Sept. 223, Oct. 253, Nov. 286; (*Correspondence*) .. Nov. 306
Electromagnetics, Improved Morphology of, (*Editorial*) .. .. July 167
Electromagnetism, The Teaching of, (*Editorial*) .. .. Oct. 253
Electronic Ram Experiments, I. J. Billington and W. R. Raudorf .. .. .. Nov. 287
Equalization, Spectrum or Waveform? D. A. Bell .. .. July 171
Equation, Van der Pol's, Ziya Akcasu .. Aug. 198
Exhibition, Institution of Electronics, .. July 194
——, Physical Society 1954, Feb. 42; Review May 132
——, R.E.C.M.F. 1954, ... Feb. 42
——, 21st National Radio, Aug. 221; Review Oct. 276
External Field of a Widely-Wound Toroid (*Editorial*) June 141; (*Correspondence*).. Oct. 282
Experimental Investigation of Grid Noise, N. Houlding and A. E. Glennie.. .. Feb. 35

FARADAY Effect in Magnetic Materials (*Editorial*) .. .. Nov. 285
—— Medal Award, I.E.E. .. .. .. Feb. 42
Faulkner, H., retiring from Post Office .. Feb. 42
Feedback Amplifiers, Multiloop, O. P. D. Cutteridge .. .. Nov. 293
——, Harmonic Distortion and Negative, E. E. Zepler, May 118; (*Correspondence*) Nov. 306
Ferrite-Core Inductors (*Editorial*) .. .. Jan. 1
Field-Strength Calculation, Kiyohisa Suda .. Sept. 249
Forbes, A. I., Appointed M.B.E. .. .. July 194
Four-Terminal Networks, Impedance Transformation by, S. Fedida .. Aug. 204, Sept. 239
Frequency (Pulse) Multiplication and Division by Delay Lines, Dr. techn. Heinz Zemanek .. .. Oct. 264

GENERAL Properties of Electromagnetic Amplifiers, D. A. Bell .. .. .. Dec. 310
Goldup, T. E., Appointed C.B.E. .. .. July 194

H.F. DIRECTION Finding, S. B. Smith and H. G. Hopkins .. .. .. Jan. 11
Harmonic Distortion and Negative Feedback, E. E. Zepler, May 118; (*Correspondence*) Nov. 306
Heaviside-Lorentz Network Theorem (*Editorials*) .. .. May 109, July 168
High-Q Coupled Tuned Circuits, Haim D. Polishuk .. .. Mar. 55
Honours, Birthday, ... July 194
——, New Year, ... Feb. 42

I.E.E. Faraday Medal Award .. .. Feb. 42
——Jubilee of the Thermionic Valve .. Sept. 252
Impedance and Reflection Coefficient, Normalized, P. A. Lindsay .. .. Feb. 43
——, Measurement of Waveguide, A. Cunliffe and D. P. Saville .. .. .. May 115
—— Theorem, Output (*Correspondence*) .. Mar. 75
—— Transformation by Four-Terminal Networks, S. Fedida .. .. Aug. 204, Sept. 239
Improved Morphology of Electromagnetics (*Editorial*) .. .. July 167
Inductances, Tapped, C. R. Cosens .. .. Mar. 74
Inductors, Ferrite-Core, (*Editorial*) .. .. Jan. 1
Institute of Physics Elections .. .. July 194
Institution of Electronics Exhibition .. July 194
Interferometer, Boltzmann, J. L. Farrands and J. Brown .. .. Apr. 81
Intermodulation Distortion in Rectifier Modulators, D. G. Tucker .. .. June 145
Ionosphere: Field-Strength Calculation, Kiyohisa Suda .. .. Sept. 249
Ionized Medium, Analogues of, R. N. Bracewell Dec. 320
Irregular Transmission Lines, A. Rosen .. Mar. 59

JUBILEE of the Thermionic Valve, I.E.E. Sept. 252

KENNELLY'S Method: Irregular Transmission Lines, A. Rosen .. .. Mar. 59

L.F. Compensation for Video Amplifiers, J. E. Flood .. .. July 175, Aug. 214
—— Noise in Resistors, Noel B. Montagnon Oct. 255, Nov. 301
Life of Transmitting Valves (*Editorial*) .. Dec. 309
Lorentz, H. A. (*Editorial*) .. .. .. Apr. 79
Lorentz/Heaviside Network Theorem (*Editorials*) .. .. May 109, July 168

MAGNETIC Materials, Faraday Effect in, (*Editorial*).. .. .. Nov. 285
Matching Discontinuities in Waveguides (*Correspondence*) .. .. Feb. 42
—— System, Transmission-Line, R. E. Collin and J. Brown, Feb. 31; (*Correspondence*) Apr. 105
Measurement at V.H.F., Valve and Receiver Noise, N. Houlding .. .. .. Jan. 15
—— of Waveguide Impedance, A. Cunliffe and D. P. Saville .. .. .. May 115
Microwave Wide-Angle Scanner (*Correspondence*) .. .. Jan. 27
Modulators, Intermodulation Distortion in Rectifier, D. G. Tucker .. .. .. June 145
Mumford, A. H., New Appointment .. Feb. 42
Multiloop Feedback Amplifiers, O. P. D. Cutteridge .. .. Nov. 293
Multiplex Television Transmission, J. Haantjes and K. Teer .. Sept. 225, Oct. 266
Multiplication and Division by Delay Lines, Pulse-Frequency, Dr. techn. Heinz Zemanek .. .. Oct. 264

NATIONAL Radio Exhibition, Aug. 221, Review .. .. Oct. 276
Negative Feedback, Harmonic Distortion and, E. E. Zepler, May 118; (*Correspondence*) Nov. 306
—— Ions in Cathode-Ray Beams (*Editorial*) Aug. 195
Network Theorem, A Heaviside-Lorentz, (*Editorials*) .. .. May 109, July 168
Networks, Impedance Transformation by Four-Terminal, S. Fedida Aug. 204, Sept. 239
Node, Voltage-Reference, Jacob Shekel .. Jan. 6
Noise, Experimental Investigation of Grid, N. Houlding and A. E. Glennie.. .. Feb. 35
—— in Composition Resistors, Current-, D. A. Bell and K. Y. Chong .. .. June 142
—— in Resistors, L. F., Noel B. Montagnon Oct. 255, Nov. 301
—— Measurement at V.H.F., Valve and Receiver, N. Houlding .. .. .. Jan. 15
——, Physical Basis of Thermal, D. A. Bell Feb. 48
Normalized Impedance and Reflection Coefficient, P. A. Lindsay .. .. .. Feb. 43
Nyquist's Criterion, O. P. D. Cutteridge .. Oct. 274

MONTH PAGE

OBSERVERS, Rotating, (*Editorials*) Sept. 223, Nov. 286; (*Correspondence*) .. Nov. 306
Oscillator Characteristic Equation, V. L. Talekar .. .. Jan. 3
——, Single-Stage Phase-Shift, W. Bacon .. Apr. 100
Output Impedance Theorem (*Correspondence*) Mar. 75

PHASE-SHIFT Oscillator, Single-Stage, W. Bacon .. .. Apr. 100
Physical Basis of Thermal Noise, D. A. Bell Feb. 48
Physical Society's Exhibition, Feb. 42; Review .. .. May 132
Post Office Appointments .. .. .. Oct. 281
Pulse-Frequency Multiplication and Division by Delay Lines, Dr. techn. Heinz Zemanek .. .. Oct. 264

QCOUPLED Tuned Circuits, High-, Haim D. Polishuk .. .. Mar. 55
Quartics, Solution of Cubics and, A. C. Sim .. Nov. 294

R.E.C.M.F. Exhibition .. .. .. Feb. 42
R.I.C. Technical Writing Premium Awards .. .. Mar. 78
Radar, Automatic Tuning for Primary, S. Ratcliffe .. .. May 122, June 153, July 187
Reflection Coefficient, Normalized Impedance and, P. A. Lindsay .. .. .. Feb. 43
Resistors, Current-Noise in Composition, D. A. Bell and K. Y. Chong .. .. June 142
——, L.F. Noise in, Noel B. Montagnon Oct. 255, Nov. 301
Rotating Observers (*Editorials*) Sept. 223, Nov. 286; (*Correspondence*) .. .. Nov. 306

SCANNER, Microwave Wide-Angle (*Correspondence*) .. .. Jan. 27
Self-Heating Triode for Voltage Stabilization, E. G. Hopkins .. .. July 169
Shoenberg, Isaac, Faraday Medal Award .. Feb. 42
Single-Stage Phase-Shift Oscillator, W. Bacon Apr. 100
Solution of Cubics and Quartics, A. C. Sim .. Nov. 294
Spectrum Equalization (*Correspondence*) .. Apr. 105
—— or Waveform Equalization? D. A. Bell July 171
Stabilization, Self-Heating Triode for Voltage, E. G. Hopkins .. .. July 169
Standard-Frequency Transmissions: Jan. 28, Feb. 52, Mar. 78, Apr. 108, May 138, June 166, July 192, Aug. 222, Sept. 252, Oct. 284, Nov. 308, Dec. 334

TAPPED Inductances, C. R. Cosens .. Mar. 74
Teaching of Electromagnetism (*Editorial*) .. .. Oct. 253
Technical Writing Premium Awards, R.I.C. Mar. 78
Television Transmission, Multiplex, J. Haantjes and K. Teer .. .. Sept. 225, Oct. 266
Theorem, Output Impedance (*Correspondence*) Mar. 75
Thermionic Valve Jubilee, I.E.E. .. Sept. 252
Toroid, External Field of a Widely-Wound, (*Editorial*) June 141; (*Correspondence*) .. Oct. 282
Transitron, Direct-Coupled, ... Sept. 234
Transmission-Line Matching System, R. E. Collin and J. Brown, Feb. 31; (*Correspondence*) .. .. Apr. 105
Transmission Lines, Irregular, A Rosen .. Mar. 59
Triode for Voltage Stabilization, E. G. Hopkins .. .. July 169

VALVE and Receiver Noise Measurement at V.H.F., N. Houlding .. .. .. Jan. 15
——, Jubilee of the Thermionic, I.E.E. .. Sept. 252
Valves, Life of Transmitting, (*Editorial*) Dec. 310
——: Self-heating Triode for Voltage Stabilization, E. G. Hopkins .. .. July 169
Van der Pol's Equation, Ziya Akcasu .. Aug. 198
Video Amplifiers, L.F. Compensation for, J. E. Flood .. .. July 175, Aug. 214
—— Couplings, Design of, Dharmajit Gupta Sarma .. .. Dec. 327
Voltage-Reference Node, Jacob Shekel .. Jan. 6
Voltage Stabilization, Self-Heating Triode for, E. G. Hopkins .. .. July 169

WAVE, The E-H Surface, A. E. Karbowiak Mar. 71
Waveform Equalization? Spectrum or, D. A. Bell .. .. July 171
Waveguide Impedance, Measurement of, A. Cunliffe and D. P. Saville .. .. May 115
Waveguides, Matching Discontinuities in, (*Correspondence*) .. .. Feb. 42

INDEX TO AUTHORS

MONTH PAGE

AKCASU, ZIYA .. .. Aug. 198

BACON, W. .. .. Apr. 100
BELL, D. A. .. .. Feb. 48, July 171, Dec. 310
BELL, D. A. and CHONG, K. Y. .. .. June 142
BILLINGTON, I. J. and RAUDORF, W. R. .. .. .. Nov. 287
BRACEWELL, R. N. .. .. Dec. 320
BRADY, T. W. .. .. May 111
BROWN, J. with COLLIN, R. E. .. .. Feb. 31
BROWN, J. with FARRANDS, J. L. .. .. Apr. 81

CHONG, K. Y. with BELL, D. A. .. .. June 142
COLLIN, R. E. and BROWN, J. .. .. Feb. 31
COSENS, C. R. .. .. Mar. 74
CUNLIFFE, A. and SAVILLE, D. P. .. .. May 115
CUTTERIDGE, O. P. D. .. .. Oct. 274, Nov. 293

FARRANDS, J. L. and BROWN, J. .. .. Apr. 81
FEDIDA, S. .. .. Aug. 204, Sept. 239
FLOOD, J. E. .. .. July 175, Aug. 214

GLENNIE, A. E. with HOULDING, N. .. .. Feb. 35

HAANTJES, J. and TEER, K. .. .. .. Sept. 225, Oct. 266
HOPKINS, E. G. .. .. July 169
HOPKINS, H. G. with SMITH, S. B. .. .. Jan. 11
HOULDING, N. .. .. Jan. 15
HOULDING, N. and GLENNIE, A. E. .. .. Feb. 35

JELONEK, Z. and SIDOROWICZ, R. S. .. .. Apr. 84

KARBOWIAK, A. E. .. .. Mar. 71

LINDSAY, P. A. .. .. Feb. 43

MILLER, E. J. with MILNE, F. A. .. .. Sept. 234
MILNE, F. A. and MILLER, E. J. .. .. Sept. 234
MONTAGNON, NOEL B. .. .. .. Oct. 255, Nov. 301

POLISHUK, HAIM D. .. .. Mar. 55

RATCLIFFE, S. .. .. .. May 122, June 153, July 187
RAUDORF, W. R. with BILLINGTON, I. J. .. .. .. Nov. 287
ROSEN, A. .. .. Mar. 59

SARMA, DHARMAJIT GUPTA .. .. Dec. 327
SAVILLE, D. P. with CUNLIFFE, A. .. .. May 115
SHEKEL, JACOB .. .. Jan. 6
SIDOROWICZ, R. S. with JELONEK, Z. .. .. .. Apr. 84
SIM, A. C. .. .. Nov. 294
SMITH, S. B. and HOPKINS, H. G. .. .. Jan. 11
SUDA, KIYOHISA .. .. Sept. 249

TALEKAR, V. L. .. .. Jan. 3
TEER, K. with HAANTJES, J. .. .. Sept. 225, Oct. 266
TUCKER, D. G. .. .. June 145

ZEMANEK, HEINZ .. .. Oct. 264
ZEPLER, E. E. .. .. May 118

WIRELESS ENGINEER

Index to Abstracts and References 1954

Included with the MARCH 1955 issue

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INDEX TO WIRELESS ENGINEER
ABSTRACTS AND REFERENCES

VOL. 31. 1954

This index to the Abstracts and References, published monthly in "Wireless Engineer" during 1954, is compiled on the same plan as for 1953, there being both Author and Subject Indexes. A list of the principal journals scanned for abstracting is included with the publishers' addresses.

CONTENTS

page	
I.1	Abbreviations
I.2	Author Index
I.37	Subject Index
I.58	U.D.C. changes
I.58	Errata
I.58	List of Journals

SYMBOLS (A) Abstract, (B) Book Review, (C) Note of Correction, (D) Discussion

AUTHOR INDEX A name followed by "and" is that of the first author of a jointly written paper, while the word "with" indicates that the name indexed is that of the second author.

Abbreviations used in the Abstracts and Index

a.c.	=	alternating current	c.w.	=	continuous wave
d.c.	=	direct current	i.c.w.	=	modulated c.w.
h.v.	=	high voltage	m.c.w.	=	modulated c.w.
l.v.	=	low voltage	s.w.*	=	short wave
a.f.	=	audio frequency	u.s.w.*	=	ultra short wave
i.f.	=	intermediate frequency	λ	=	wavelength
r.f.	=	radio frequency, including:—	c.r.	=	cathode ray
l.f.	=	low frequency, <300 kc/s	c.r.o.	=	cathode ray oscilloscope
m.f.	=	medium frequency, 300–3000 kc/s	d.f.	=	direction finding
h.f.	=	high frequency, 3–30 Mc/s	e.m.	=	electromagnetic, *but*
v.h.f.	=	very high frequency, 30–300 Mc/s	e.m.f.	=	electromotive force
u.h.f.	=	ultra high frequency, >300 Mc/s	e.s.	=	electrostatic
a.m.	=	amplitude modulation	a.f.c.	=	automatic frequency control
f.m.	=	frequency modulation	a.g.c.	=	automatic gain control
p.m.	=	pulse modulation, including:—	a.ph.c.	=	automatic phase control
p.a.m.	=	pulse amplitude modulation	a.v.c.	=	automatic volume control
p.c.m.	=	pulse code modulation	m.u.f.	=	maximum usable frequency
p.f.m.	=	pulse frequency modulation	p.p.i.	=	plan position indicator
p.ph.m.	=	pulse phase modulation	s.s.b.	=	single sideband
		or	d.s.b.	=	double sideband
p.p.m.	=	pulse position modulation	s.w.r.	=	standing wave ratio
p.w.m.	=	pulse width modulation	v.f.o.	=	variable frequency oscillator
ph.m.	=	phase modulation	R/T	=	radiotelephony
v.m.	=	velocity modulation	W/T	=	wireless telegraphy
			TV	=	television

*No clearly defined limits

AUTHOR INDEX

Aarons, J., aerial and receiver measurements by solar and cosmic noise, **2376**
—— and M. Henissart, noise in the range 0·5–20 c/s, **722**
Abak'yants, G. M., equations of transport in strong electric fields, **3519**
Abeles, B., with S. Meiboom, theory of galvanomagnetic effects in *n*-type Ge, **2425**
Abelès, F., increased resistance due to lacunae in metals, **160**
Abetti, P. A., and F. J. Maginniss, coils, natural frequencies of, **(A)655,** fundamental oscillations of, **3483**
Abgrall, C., measurement of dielectric constants of liquids, **1132**
Abraham, H. J. M., annual fluctuations in quartz-clock error, **1848**
Abrahams, I. C., N.T.S.C. standards, chrominance subcarrier frequency in, **1199,** frequency interleaving principle in, **1199**
Abramowitz, M., evaluation of $\int_0^\infty e^{-u^2-x/u}\,du$, **792**
Acheson, M. A., valve life and reliability, **3081**
Adam, E., transmission characteristics of coaxial cables, **961**
Adam, G. D., and K. J. Standley, microwave resonance absorption in Mn compounds, **766**
Adams, E. N., II, possible degeneracy of energy bands in Ge, **1465**
Adams, K. H., filter circuits for electrical production of sound, **3333**
Adcock, W. A., and others, Si transistor, **3072**
Adirovich, E. I., and V. G. Kolomilova, carrier formation and relaxation on illumination of semiconductor, **2967**
Adler, F. P., measurement of conductivity of jet flame, **3620**
Adler, R., and C. Heuer, colour decoder simplifications based on a beam deflection tube, **2244, 2549**
Admiraal, D. J. H., stabilized d.c. supply unit, **863**
Agapov, I. F., two-channel frequency-shift radiotelegraphy, **3355**
Agdur, [N.] B., amplification measurements on velocity-step tube, **3721**
—— with O. E. H. Rydbeck, space-charge waves in periodic structures, **3723**
Agranovskaya, A. I., with others, ferroelectric properties of $BaTiO_3$-$PbZrO_3$ solid solutions, **1446**
Agy, V., motion of storm-D regions, **2398;** location of auroral absorption zone, **3224**
Aha, E., with K. Tamm, capacitive velocity pickup, **319**
Ahern, W. R., television lighting routines, **2529**
Ahmed, M. A. H., c.r.-tube synchroscope, **(A)814**
Aigrain, P., and O. Garreta, theory of photomagnetomechanical effect, **2414**
Aikin, A. W., Atomic Energy Research Establishment Report A.E.R.E. X/R 608, Mode-Separation Theory for Heavily Strapped Magnetrons, **(B)607**
Aisberg, É., French components show, 1954, **3426**
Aitchison, R. E., transparent semiconducting oxide films, **2435**
Akcasu, Z., van der Pol's equation, **2886**
Akeley, E. S., with I. Jacobs, transverse motion of electron in linear accelerator, **3015**
Akin, P. A., light-weight waveguides, **3130**
Akulov, N. S., and T. A. Elkina, relations between losses and coercive force, **1110**
Albach, W., effect of h.f. biasing in magnetic tape recording, **1289**
Alberigi, A., F. Lepri and G. Stoppini, time-discriminating pulse selector, **1007**
Albersheim, W. J., experimental delay-distortion scanner, **220**
Albers-Shoenberg, E., ferrites for microwave circuits and digital computers, **2146**
Albright, W. G., with R. N. Ghose, v.h.f. field intensities in diffraction zone, **2753**
Aldrich, R. W., and I. A. Lesk, double-base diode semiconductor thyratron analogue, **2535**
Aleksić, T. Z., amplitude comparator for computing purposes, **3474**
Alentsev, M. N., and A. A. Cherepnev, absorption and luminescence spectra of ZnS-Cu phosphors, **3239**
Alexander, J. T., with others, preamplifier for recording bioelectric potentials, **1360**
Alexander, S. N., with A. L. Leiner, system organization of DYSEAC, **2320**
—— with others, SEAC, **32**
Alexopoulos, K., and A. Theodossiou, ferromagnetism of pyrrhotite, **763**
Alfvén, H., identification of sunspots, **1752**
—— and D. Romell, strophotron valve, **3398**
Alkemade, C. T. J., Thomson formula for coefficient of 3-body recombination, **3533**
Allcock, G. McK., application of radio propagation predictions, **1547**
Allen, C. W., diurnal variations in F_2 region, **728;** physical condition of solar corona, **2931**
Allen, J. E., beat between sound carrier and colour signal components in television receiver, **2250**
Allen, J. S., u.h.f. television satellite operation, **2232**
Allen, W. A., with others, acoustics of Royal Festival Hall, **312**
Alley, R. E., Jr, new magnetic phenomena, **175**
—— and F. J. Schnettler, permeability relaxation of toroidal samples of ferrites, **1829**
Allison, R. E., variable inductor, **346**
Alpert, D., and R. S. Buritz, limiting factors on attainment of very low pressures, **2102**
—— with others, diffusion of He in glass, **3564**
Altenburg, K., and S. Kästner, wave propagation in stratified media, **1371**
Altes, S. K., and A. P. Stern, colour signal for single-gun tubes, **3699**
Althans, W., radio, television and electroacoustic apparatus at 1953 Hanover Technical Fair, **293**
Altshuler, S. A., V. Ya. Kurenev and S. G. Salikhov, paramagnetic resonance absorption in metals, **186**
Ambrosio, B. F., with others, SWAC, **31**
van Amerongen, C., with others, dielectric relaxation of glass at low frequency, **1841**
Ammerman, C. R., with R. L. Riddle, fading of 100-Mc/s f.m. signals, **2754**
Amos, B., and C. Quirk, correlation of picture quality between field and laboratory signals, **3010**
Ananthakrishnan, R., geomagnetic activity and sunspot cycle, **1050**
Anderson, G. P., two-band transmitter-receiver, **530, (C)856**
Anderson, J., and W. D. Meewezen, mobile ph.m. transmitter-receiver unit, **2510**
Anderson, L. J., and E. E. Gossard, effect of oceanic duct on microwave propagation, **233, 1552**
Anderson, R. L., with others, current carrier lifetimes deduced from Hall coefficient, **1075**
André, P., with others, losses in parallel-wire lines, **2311**
Andres, J. M., and U. Ingard, acoustic streaming, at low Reynolds numbers, **926,** at high Reynolds numbers, **927**
Andress, P. M., resistance-bridge formulae, **(A)1859**
Andrew, A. M., information theory, **252**
Andrievski, A. I., and M. T. Mishchenko, copper-oxide contact layer, **3597**
—— and A. L. Rvachev, Cu_2O photocells prepared in h.f. field, **1613**
—— V. I. Voloshchenko and M. T. Mishchenko, electrical conductivity of Cu_2O, **1815**
Angell, J. B., and F. P. Keiper, Jr, surface-barrier transistors, circuit applications of, **692**
Angelo, E. J., Jr, beam tube for analogue multiplication, **2583**
Anisimov, V., miniature radio valves, **2806**
Anliker, M., H. R. Brugger and W. Känzig, properties of colloidal ferroelectric materials, $BaTiO_3$, **3244**
Anner, G. E., corner plots, **2332**
Annis, M., W. Cheston and H. Primakoff, statistical estimation in physics, **1370**
Antonov-Romanovski, V. V., absorption coefficient of phosphor powders, **3237**
Aoki, K., observation of partial solar eclipse at λ 10 cm, **2647**
Apanasenko, V. A., with M. D. Karasev, surface waves on single cylindrical conductor, **3122**
Aparo, E., with D. Dainelli, recent electronic computers, **642**
Appelt, O. H., K. Christ and K. Schmid, Cologne-Frankfurt-Neustadt television link, **538**
Appleton, E. V., and W. R. Piggott, ionospheric absorption measurements, **3220**
Apstein, M., and H. H. Wieder, capacitor-modulated f.m. system, **280**
—— with J. Rabinow, distributed transducer for ultrasonic power, **3012**
Arbeiter, H. J., with others, line amplifiers for community television systems, **3066**
Archard, G. D., magnetic electron lens aberrations, **1534;** potential distribution of cylindrical electron lenses, **3329**
Archer, D. H., with G. D. M. Peeler, microwave Luneberg lens, **336**
Arditi, M., properties of microstrip components, **1296**
Arend, H., and H. Irmler, light yield of phosphors excited by electron beams, **1442**
Arendt, P. R., 'sensation-correct' gamma correction of television pictures, **2249**
Argence, É., effect of geomagnetic field on s.w. propagation, **508**
—— and M. Mayot, determination of true height of ionosphere layers, **1765**
—— with K. Rawer, E region, formation of, **1057,** origin of, **2667**
Arifov, U. A., A. Kh. Ayukhanov and S. V. Starodubtsev, secondary emission in conductors bombarded by ions, **3530**
Armstrong, C. A., communications for civil defence, **2764**
Armstrong, E. H., and H. J. Bose, multiplex f.m. broadcast signals, **849**
Armstrong, H. L., thermal effects in point-contact rectifiers, **1242, (C)1948**
Armstrong, L. D., and D. A. Jenny, Ge junction transistors at high temperatures, **1952**
Arnold, A. H. M., performance limits in electrical instruments, **(D)1144;** a.c.-instrument testing equipment, **2470**
Arsac, J., P. André and R. Zaccai, losses in parallel-wire lines, **2311**
—— and others, two u.h.f. radiometers, **716**
Arsove, M. G., note on network postulates, **661**
Artman, J. O., microwave Fabry-Perot interferometer, **809**
—— and P. E. Tannenwald, permeability-tensor measurement in ferrites, **769**
Artzt, M., with others, recording and reproducing television signals, **2517**
Asahi, T., with others, magnetization of Mg ferrite, **1108**
Ascoli, R., stabilization of photomultipliers, **1156**
Aseltine, J. A., transform method for linear time-varying systems, **3284**
Ash, E. A., with D. A. Watkins, helix as backward-wave circuit structure, **3399**
Ashburn, E. V., determination of height of night airglow, **2675**
Atiya, F. S., theory of maximally flat and quasi-Tchebycheff filters, **358;** band-pass filters, **360**

Attree, V. H., characteristics of temperature-limited diode, (D)**1260**
Auerbach, I. L., digital memory systems, **2005**
Auld, J. S., and A. Gallonio, pulse distribution in television-network origination, **3379**
Aumont, R., J. Romand and B. Vodar, measurement of temperature of conductor based on noise, **2480**
Avery, D. G., optical properties of PbS, PbSe and PbTe, **2105**
Avins, J., design of i.f. amplifiers for colour-television receivers, **3701**
—— B. Harris and J. S. Horvath, improving transient response of television receivers, **1222**
Awender, H., and K. Sann, classification of quartz-crystal oscillator circuits, **2892**
Axner, Y., magnetic and electric fields with cylindrical symmetry, **2191**
Ayer, R. B., high-power industrial valves with Th-W filaments, **2814**
Ayers, S., with R. Bechmann, elastic and piezoelectric coefficients of DKT, **3248**
Ayukhanov, A. Kh., with others, secondary emission in conductors bombarded by ions, **3530**
Azaroff, L. V., one-dimensional Fourier analogue computer, **3142**
Azbel', M. Ya., and M. I. Kaganov, anomalous skin-effect in magnetic field, **2624**

Babcock, M. L., D. F. Holshouser and H. von Foerster, diode characteristic of hollow cathode, **596**
Babits, V. A., S. R. Spengler and R. V. Morris, current-step waveform generator, **2183**
Bacon, W., single-stage phase-shift oscillator, **1717**
Baer, K. H., and H. Lauer, transmission-quality tests on modern m.f. transmitters, **1944**
Bagguley, D. M. S., ferromagnetic resonance in colloidal suspensions, **443**
Baguley, E., coaxial-cable technique in Great Britain, **960,** (C)**3450**
Bailey, R., with G. Liebmann, iteration method for resistance-network analogues, **2011**
Bailey, S. L., measurements and standards for control of spurious radiation, **3026**
Bailey, W. F., constant-luminance principle in N.T.S.C. colour television, **1199**
—— and C. J. Hirsch, quadrature crosstalk in N.T.S.C. colour television, **1199**
Bailey, W. H., non-contact d.c. ammeter, **1145**
Bain, W. C., wave-interference errors on a wide-aperture direction finder, **144**
Baird, K., multiple reflections from F_2 layer, **2750**
Baker, B. O., Au as grid-emission inhibitor, **1259;** electron-trajectory plotting using electrolyte tank, **3304**
Baker, D. K., flicker noise in Ge rectifiers, **3711**
Baker, G. S., L. M. Slifkin and J. W. Marx, Ge under ultrasonic stress, **1094, 1095**
Baker, R. H., I. L. Lebow and R. E. McMahon, transistor shift registers, **2869**
—— and others, phase-bistable transistor circuit, (C)**659**
—— with I. L. Lebow, transient response of transistor switching circuits, **2592**
—— with others, transistors convert sine waves to pulses, **2344**
Baker, W. G., electric currents in ionosphere, **1418**
—— and D. F. Martyn, electric currents in ionosphere, **1417**
Baker, W. R. G., future of colour television, **1199**
Bakhrakh, L. D., integral equation of linear aerial, **1675;** maximal directivity coefficient of linear and plane aerials, **2567**
Balakov, V. V., and V. A. Smeshkova, resistance and photoconductivity of PbS films at high frequencies, **3581**
Baldwin, J. E., search for radio emission from Orion nebula, **396;** radio brightness across Crab nebula, **3545**
—— and D. W. Dewhirst, bright radio source in Gemini, **1753**
—— and B. Elsmore, radio emission from the Perseus cluster, **2652**
Ball, A. H., and W. Nethercot, ignition interference in television, **572**
Ballard, R. C., transistor f.m. receiver, **838**
Balser, M., with R. A. Silverman, coding for constant-data-rate systems, **3674**
Baltensperger, W., conduction in impurity bands, **1451**
Banbury, P. C., theory of injecting point contacts, **1239**
—— H. K. Henisch and A. Many, isothermal Hall effect in semiconductors, **433**
Bandtel, K. C., with others, r.f. structure of photon beam from synchrotron, **3645**
Bane, W. T., design charts for on/off control system, **533**
Banerjee, B. M., reactance-valve-controlled oscillator for wide frequency sweep, **2888**
Banerji, R. B., recombination in the F regions, **1058**
Bangert, J. T., transistor as network element, **2026**
Banks, G. B., K. Frank and E. D. Hendry, image-orthicon camera tubes, **547**
Barber, G. J., and T. F. W. Embleton, sawtooth waveforms in sound, **1269**
Barbier, J. C., fluctuation magnetic after-effect, **2074**
Barbiere, D., current distribution of Tchebycheff arrays, (D)**2569**
Barbour, J. P., and others, space-charge effects in field emission, **1027**
—— with others, field-emission-initiated vacuum arc, **1025**
Barchukov, A. I., with A. M. Prokhorov, measurement of absorption coefficients by microwave spectroscopy, **3540**
Bardeen, J., with H. Letaw, Jr, electrolytic analogue transistor, **3073**
Barden, S. E., space-charge forces in strong-focusing synchrotrons, **2485;** regenerative deflection as a parametrically excited resonance phenomenon, **3643**
Bareford, C. F., and M. G. Kelliher, 15-MeV linear accelerator, **226**
Barker, R. G., and G. L. Connon, periodmeter, **221**
Barker, R. H., pulse transfer function and application to servo systems, (D)**2222**
Barlow, H. [E.] M., application of Hall effect to power measurement, **1856**
—— and A. L. Cullen, surface waves, **624**
—— and A. E. Karbowiak, characteristics of cylindrical surface waves, **623;** properties of corrugated cylindrical surface waveguides, **2301**
Barlow, M., amateur television progress, **541**
Barnes, G. W., s.s.b. controlled-carrier system for aircraft communication, **2512**
Barré, M., electrical properties of blizzards, **418**
Barron, J., r.f. h.v. supplies, **3687**
Barstow, J. M., and H. N. Christopher, measurement of random video interference, **2790**
Barton, L. E., experimental transistor broadcast receiver, **2206, 3022**
Bartschat, A., with H. Gobrecht, properties of CdS single crystals, **1814**
Barut, A. O., mechanism of secondary emission, **2360**
Basnett, T. N., factors affecting valve life, **3717**
Bassett, H. G., and L. C. Kelly, distributed amplifiers, **1359,** (D)**3176**
Bast, G. H., and J. L. Hurault, carrier-current system for short distances, **1177**
Batdorf, S. B., and W. N. Johnson, instability of self-saturating magnetic amplifiers, (A)**1365**
Bates, L. F., and A. Hart, powder patterns of grain-oriented and single-crystal SiFe, **770**
—— and N. P. R. Sherry, thermal effects in magnetization of ferroxcube IV, **177**
—— and G. W. Wilson, Bitter figures on single crystal of Ni, **764**
Bath, F., and H. Kaden, distortion of television signals, **2515**
Batten, H. W., and others, response of panoramic receiver, **2755**
Battey, J. F., and R. M. Baum, energy of high-lying acceptor level in Cu-doped Ge, **3263**
—— with S. Visvanathan, diffusion of minority carriers in semiconductor, **1795**
Bauch, F. W. O., new capacitor microphones, **318**
Bauer, B. B., transformer couplings for equivalent networks, **920;** miniature microphone, **956**
Bauer, E., and Ta-You Wu, origin of E layer, **1764**
Bauer, J., coaxial-line amplifier, **1572**
Bauer, J. A., measurement of amplitude distortion in colour television, **1151**
Bauer, K., and W. Haberditz, selective amplifier for 6·25 c/s, **2896**
Baum, R. M., with J. F. Battey, energy of high-lying acceptor level in Cu-doped Ge, **3263**
Baumel, I. D., with E. M. Hinsdale, Jr, capacitively tuned u.h.f. television tuner, **1940**
Baumgartner, W., with others, dark current of electron multipliers with Cs-Sb photocathode, **2800**
Baxandall, P. J., with S. W. Noble, d.c. amplifier based on magnetic modulator, (D)**1012**
Baxter, I. G., triode f.m. discriminator, **2347**
Bayet, M., e.m. properties of plasma in magnetic field, **2925**
—— J. L. Delcroix and J. F. Denisse, conductivity tensor of electron plasmas, **1031;** solution of Boltzmann's equation for weakly ionized gases, **2910**
Beagley, J. W., ionospheric and geomagnetic effects of solar flares, **1405**
Beakley, W. R., stable source of low direct voltage, **3686**
Bean, B. R., fadeouts at 1046 Mc/s observed in Cheyenne Mountain propagation programme, **2499**
Beane, N. J., and R. C. Richards, flexure-mode quartz oscillators, **354**
Beard, E. G., circuits for limiting peak voltages, **885;** television synchronizing signals, **3370**
Beatty, R. W., mismatch errors in measurement of attenuators, **2167**
Beauchamp, K. G., linearity-measuring instrument for television scanning, **811**
Beaumont, E. B. M., with others, provision of communications for Coronation of Her Majesty Queen Elizabeth II, **251**
Beaver, W. L., with M. W. Muller, application of perturbation theory to travelling-wave valves, **2808**
Bechmann, R., linear piezoelectric equations of state, **110;** dynamic determination of elastic and piezoelectric constants, **1791**
—— and S. Ayers, elastic and piezoelectric coefficients of DKT, **3248**
Beck, A. C., microwave testing with μs pulses, **2771**
Beck, A. H. W., Thermionic Valves, their Theory and Design, (B)**3733**
Becker, R., h.f. separating-filter networks, **87;** representation of stationary statistical functions, **3285**
Becker, U., and J. F. Denisse, sunspot control of geomagnetic activity, **2082**
Becker, W., scattering of radio waves by E_s layer, **138;** winds in the ionosphere, **2944**
Beckmann, B., quality of radio weather, **3665**
Beer, A. C., with others, Hall coefficient in Ge, **2975**
Beer, O., explanation of inaccuracy of secondary-electron measurements, **2361**
Behling, H., reactance-valve circuit for f.m., **1942;** 4-circuit filter, **3493**
Behrend, W. L., with others, test instruments for colour television, **1152**
Behrendt, W., special films for television recording, **1930**
Beiser, L., how to handle ringing in television, **2522**
Bekefi, G., diffraction of sound by circular aperture, **299;** diffraction of e.m. waves by aperture, **709;** impedance of aerial above circular ground plate, **2308**
Belger, E., interference effect of noises, **1981;** subjective investigations of nonlinear distortion of N.W.D.R. transmitters, **3709**
Beljers, H. G., methods of measuring magnetic fields, **477;** Faraday effect in magnetic materials, **2987**
Bell, C. J., with P. A. O'Brien, distribution of r.f. brightness across solar disk, **2649**

Bell, D. A., Johnson noise and equipartition, (D)**375,** (D)**604;** compatible colour television, **870;** information theory and television, (D)**872;** physical basis of thermal noise, **1015;** spectrum or waveform equalization, **2598;** statistics of population with creation and recombination dependent on existing numbers, **2717**
—— and K. Y. Chong, current noise in composition resistors, **2328**
Bell, D. G., and others, band structure of Si, **3584**
Bell, E. E., with others, infrared photoconductivity due to neutral impurities in Ge, **1808;** optical investigations of impurity levels in Si, **2422**
Bell, J. S., vertical focusing in microtron, **818**
Belmont, E., with K. Lehovec, preparation of *p-n* junctions by surface melting, **1807**
Below, F., television switching equipment at Lokstedt studio, **566**
Belrose, J. S., short aerials for mobile operation, **632**
Belser, R. B., technique of soldering to thin metal films, **2154**
Belski, A. F., and A. I. Blum, rectification properties of Se-HgSe contact, **3690**
Belyaev, I. N., and others, temperature changes of $BaTiO_3$ single crystals, **1116**
Benda, H., emission constants of metal capillary cathodes, **589**
Bendayan, J., measurement of elongation of short-duration signal, **2463**
Bender, D., with A. Schulze, behaviour of Au-Cr standard resistors under load, **2719**
Benedict, T. S., collision frequency of holes in Ge, **1087**
Beneking, H., transistor characteristics, **2542**
de Bennetot, M., calculation of permanent magnets of 'tubular' form, **2991;** experimental investigation of reflex klystron, **3083**
Bennett, A. I., Jr, magnetic amplifier uses conventional inductors, **1010**
Bennett, F. K., how to use thermistors, **2327**
Bennett, H. E., with others, refractive index of Ge measured by interference method, **2131**
Bennett, H. S., e.m. transmission characteristics of two-dimensional lattice, **1743**
—— and A. A. Kiriloff, magnetron stability tester, **2477**
Bennett, R. R., analogue computing in noise studies, **52**
—— and H. Low, step-switch converter digitizes analogue data, **339**
Bennett, W. R., correlatograph, **58**
Bennington, T. W., ionosphere review for 1953, **1060;** interference to television via sporadic E, **278**
Benoit, A., particle detectors of G-M counter type, **2743**
Benoit, J., and E. Naschke, permeability of iron, from 0 to 7000 Mc/s, **2984,** influence of domain thickness on, **3271**
Benson, D. L., and D. H. Vogan, testing cold-cathode tubes, **2184**
Benson, F. A., attenuation in Ni and mild-steel waveguides at 9·375 kMc/s, **1299;** series operation of glow-discharge tube and barretter, **1583**
—— and G. V. G. Lusher, voltage stabilizers for microwave oscillators, **1925**
—— and G. Mayo, impedance/frequency variations of glow-discharge voltage-regulator tubes, **3101;** temperature variations of glow-discharge tube characteristics, **3422**
—— and R. M. Pearson, comparison of materials for microwave attenuators, **678**
—— and M. S. Seaman, characteristics of diode Type 29C1, **595**
—— G. V. G. Lusher and M. S. Seaman, variations of triode characteristics with heater voltage, **598**
Benson, J. M., and J. E. Swafford, Raydist systems for radiolocation, **1431**
Benson, K. B., modified preamplifier improves movie telecasts, **874**
Benthem, C. W., and R. Kronig, anomalous skin effect of metals, **3523**
Bentz, W., with H. Schmauch, measurement of sound velocities using ultrasonic-pulse equipment, **3109**
Berbezier, J., electronic equipment for geological research, **826**
Bereskin, A. B., high-efficiency high-quality a.f. power amplifier, **2611**
van den Berg, G. J., with others, velocity of sound down to liquid-He temperature, **3439**
Berge, R. I., and C. A. Guderjahn, recording fluxmeter, **3002**
Bergen, S. A., with J. R. Boundy, electronic process controller, (D)**1155**
Berko, S., and F. L. Hereford, deflection of high-energy electrons in magnetized iron, **1041**
Berkowitz, B., horn-fed aerials, **637**
Berlaga, R. Ya., and L. P. Strakhov, production of e.m.f. by illumination of PbS photoresistors, **3716**
Bernard, M. Y., focusing high-energy particles, **227;** divergence caused by gaps in linear accelerators, **1875**
Bernard, R., French work in electron microscopy in past year, **2740**
—— and J. Janin, luminescent substance with Sb_2O_4 base, **3571**
—— with J. Janin, luminescent Sb_2O_3, **158**
Berndt, W., combined transmitting aerials for television and u.s.w. broadcasting, **16**
Bernstein, I. B., and T. Holstein, electron-energy distributions in stationary discharges, **3192**
Berry, S. D., amplifiers for sound programme chain, **3508**
Bers, L., nonlinear partial difference equations of elliptic type, **1845**
Berthaud, M., cathode parasitic impedance, **1620**
Berthold, C., radio experiments in mines, **3683**
Bertolini, F., capacitance of spherical capacitor, **1396**
Bertram, S., calculation of resonant properties of cavities, **1701**
Bess, L., mechanism of noise generation in semiconductors, **1100**
Best, A. C., relation between rain current and rate of rainfall, **139**
Bettridge, B. R., experimental transistor receivers, **836**
Bever, R. S., diffusion of Ba in oxide-coated cathode, **590**
—— with others, oxygen vacancies in BaO, **1114**
Beynon, W. J. G., absorption of waves obliquely incident on ionosphere, **1550**
Bezuszka, S. J., scattering of underwater ultrasonic waves, **1640**
Bhargava, B. N., and A. M. Naqvi, very long sequences of geomagnetic activity, **2386**
—— with A. K. Das, radio noise bursts from solar *M* regions, **1044**
Bhatnagar, P. L., E. P. Gross and M. Krook, model for collision processes in gases, **2633**
Bhattacharya, J. C., instrument for measurement of capacitance, **3007**
Bhattacharyya, B. K., effect of pulse steepness on amplifier response, **2894**
Bick, J. D., measuring surface induction of magnetic tape, (C)**3118**
Billig, E., and M. S. Ridout, transmission of electrons and holes across a twin boundary in Ge, **2431**
Bills, A. E., and R. Lefker, shadowing technique for electron microscopy, **3653**
Bilotti, A., television receiver, **1219**
Binder, R. C., with H. O. Monson, jet-type ultrasonic vibrators, **940**
Bingley, F. J., colorimetry in television, **1199;** transfer characteristics in N.T.S.C. colour television, **1199**
Biondi, M. A., diffusion cooling of electrons in ionized gases, **2359**
—— with E. Gerjuoy, dissociative recombination in E layer, **405**
Birardi, B., radar displays of atmospheric precipitation, **739**
Bird, A. G., with W. S. McGuire, radio bearer equipment for carrier telephone systems, **1574, 2218**
Birkinshaw, D. C., importance of d.c. component in television, **552,** (D)**1937**
Birnbaum, G., with H. E. Bussey, variations in atmospheric refractive index, **718**
Birx, D. L., with others, electric strength of air at r.f., **2628**
Bishop, D. E., F. G. Hewitt and D. B. Callaway, design of noise-reducing telephone booths, **2844**
Bishop, H., inaugural address of I.E.E. President, **1920**
Biswas, N. N., and S. K. Chatterjee, note on Armstrong system of f.m., **246**
Björkman, J., and L. Lindberg, development of trochotrons, **3079**
Blachman, N. M., minimum-cost encoding of information, **3031**
van Bladel, J., d.c. restoring of pulses, **679;** oscillator with frequency 'memory', **681**
Blake, L. V., number of pulses per beam width for radar, **738**
Blakemore, J. S., A. E. De Barr and J. B. Gunn, semiconductor circuit elements, **439**
Blanc, A., analogue arrangement for solving nonlinear partial differential equations, **2317**
Blanc, D., counters with external cathode and pure methyl-alcohol filling, **1879, 2490**
Blanchard, R. L., with R. E. Scott, iterative method for network synthesis, **1703**
Bland, W. R., and B. J. Cooper, high-speed precision tachometer, **1153**
Blankenburg, G., semiconductor properties of Cu_2O, **3594, 3595**
—— and G. Schubart, temperature dependence of conductivity of Cu_2O, **437**
Blaquière, A., effect of valve noise on oscillators, **683**
Blasi, E. A., radiation mutual-coupling factor, **2859**
Blassel, P., error due to finite integration time-limits in determination of autocorrelation functions, **1847**
Blattner, D. G., precision potentiometers for analogue computers, **3316**
Bleaney, B., and K. W. H. Stevens, paramagnetic resonance, **452**
Bleazey, J. C., with others, uniaxial microphone, **957**
Blet, G., photocells, new type of fatigue in, **1251,** effect of X-rays on, **1609,** modification of spectral response due to illumination fatigue of, **1959,** inertia phenomena in, **2801**
Bleuze, J., properties and applications of thermistors, **653**
Blewett, M. H., cosmotron, **821**
Bloch, A., K. E. Buecks and A. G. Heaton, improved radio altimeter, **1434**
—— R. G. Medhurst and S. D. Pool, design of super-directive aerial arrays, **19**
Bloembergen, N., with F. K. Willenbrock, paramagnetic resonance in *n*- and *p*-type Si, **1080**
Blom, P., electronic hearing aid, **325**
Blondé, R., with others, compressor-expander system of French Post Office, **1725**
Bloom, S., and R. W. Peter, transmission-line analogue of modulated electron beam, **2810;** minimum noise figure for travelling-wave valve, **3402**
—— with others, space-charge-wave amplification along electron beam, **2811**
Bloomsburgh, R. A., measurement of yoke astigmatism, **3704**
Blount, F. E., transistor oscillator for multifrequency pulsing, **1005**
Blum, A. I., with A. F. Belski, rectification properties of Se-HgSe contact, **3690**
Blum, É. J., J. F. Denisse and J. L. Steinberg, influence of ionosphere on galactic radiation at 29·5 Mc/s, **2397**
—— with others, two u.h.f. radiometers, **716**
Blum, P., and R. Pauthenet, study of ferromagnetism of cementite, **1104**
—— with R. Pauthenet, thermomagnetic study of Gd ferrite, **3273**
Boadle, R. D., multichannel microwave relay system, **1576**
Boag, J. W., design of electric field in Van de Graaff generator, **816**
Bode, D. E., and H. Levinstein, photoconductivity of InSe, **1777**
Bodenstedt, E., critical-energy effect in strong-focusing synchrotron, **2737**
Boella, M., new frequency standards of G. Ferraris Institute, **3618**
Böer, K. W., Gisolf's theory of electron fluctuations in semiconductors, **2139**
—— and K. Junge, frequency dependence of electron fluctuation phenomena in semiconductors, **3601**

Boerdijk, A. H., value of constant in Wien's displacement law, **376**
Boesch, W., calculations for impedors in parallel, **1688**
Boggs, G. E., stable voltage-controlled logarithmic attenuator, **2038**; mixers and amplifiers with current feedback, **2885**
Bogoroditski, N. P., and T. N. Verbitskaya, characteristics of ferroelectric ceramics, **1444**
—— and Z. F. Vorobei, nonlinearity of SiC resistors, **3482**
Bohm, D., and D. Pines, collective description of electron interactions, **1375**
—— with D. Pines, collective description of electron interactions, **1021**
Bolie, V. W., *RC* filter incorporating periodically conducting element, **3496**
Bolis, V. W., thermistor chart, **3151**
Bolle, A. P., application of complex symbolism to linear variable networks, **77**; twin-T *RC* networks and application to oscillators, **673**
Bolljahn, J. T., and R. F. Reese, electrically small aerials and the aircraft-aerial problem, **1680**
Bolton, J. G., and O. B. Slee, galactic r.f. radiation, sea interferometer, **1755**
—— O. B. Slee and G. J. Stanley, galactic r.f. radiation, scintillations of discrete sources, **1756**
—— G. J. Stanley and O. B. Slee, galactic r.f. radiation, discrete sources at 100 Mc/s, **2654**
—— and others, galactic r.f. radiation, discrete sources of large angular width, **2653**
—— with K. X. McGee, probable observation of the galactic nucleus, **2932**
Bolz, G., small ultrasonic probes for measurements in liquids, **2287**
Bondarenko, A. P., earth currents and geomagnetic variations, **1412**; electric field induced by geomagnetic variations, **3547**
Bonpas, M., with others, G-M counters with mixtures of rare gas and organic vapour, **1540**
Bonshtedt, B. E., with G. A. Grinberg, exact theory of wave field of transmission line, **1989**
Booth, A. D., hysteresis-loop plotter, **1507**
—— and A. D. Holt, Se rectifier in digital computers, **3146**
Booth, R. E., and R. C. White, valve frame grid for automatic production, **3410**
Boothroyd, W. P., and J. Waring, selection of u.h.f. television signals, **535**
Booton, R. C., Jr, nonlinear control systems with random inputs, **2776**
Bopp, F., nature of waves, **3185**
Bordan, J., with W. Hitschfeld, errors in radar measurement of rainfall, **2404**
Bordone, C., and G. G. Sacerdote, power and efficiency of passive quadripoles, **81**
Borgnis, F., interaction between e.m. wave and dipole, **972**
Borgnis, F. E., acoustic radiation pressure, **1**
Borovik, E. S., conductivity of metals at high current density, **1793**
Borowitz, S., electron-ion recombination at low pressures, **2634**
van den Bosch, J. C., and F. Bruin, cavity wavemeter, **483**; automatic milliwattmeter for e.m. radiation, **1864**
Bösch, W., telemetering sytems, **1870**
Boscia, A. F., colour-bar generator produces I-Q signals, **2732**
Bose, H. J., with E. H. Armstrong, multiplex f.m. broadcast signals, **849**
Bosman, L., with others, receiving aerials for band III television, **3461**
Bosse, G., calculation of spectrum for multichannel radio links with f.m., **248**; band-pass circuits with minimum number of coils, **3497**
Bosse, H., and W. Crone, slotted-cylinder aerial for 174–216-Mc/s band, **562**
Both, E., permeability of SiFe, (**A**)**771**
Böttcher, F., nonlinear distortion in class-B push-pull amplifier, **1236**
Böttger, O., semiconductor properties of Cu_2O, (**C**)**436**
Bouderlique, M., with G. Comte, amplitude and phase equalizer for pulse echometer, **3623**
—— with others, echometer for testing coaxial cables, **1136**
Bouix, M., measurements on cm-λ aerials, **1127**; direction of maximum gain and stationary polarization for radiation from aerial, **3132**
Boulloud, A., discharge between positive point and plane in compressed air, **2917**
Boundy, J. R., and S. A. Bergen, electronic process controller, (**D**)**1155**
Bouwkamp, C. J., diffraction theory, **2909**
Bovill, C., printed-circuit television set, **3059**
Bowe, P. W. A., radio atmospherics received simultaneously at two places, **232**
Bowen, E. G., A Textbook of Radar, (**B**)**3562**
Bowerman, E. R., and R. F. Walton, flexible plated circuit, **695**
Bowers, D. F., and J. F. Ennos, high-power h.f. broadcast transmitters, **2252**
Bracewell, R. N., J. Harwood and T. W. Straker, ionospheric propagation at 30–65 kc/s over short distances, **2200**
Bradburd, E. M., Type-FTL 20-B u.h.f. television transmitter, **2786**
Bradfield, G., improvements in ultrasonic flaw detection, **3311**
Bradley, R. S., thermistor McLeod gauge for $1–10^{-7}$ mm Hg, **3229**
Bradley, W. E., surface-barrier transistors, principles of, **893**; design of band-pass amplifier, **1713**
Bradshaw, S. E., melting and solidification of Ge, **3588**
Brady, T. W., cathode-coupled valves, **2052**
Braffort, P., M. Spighel and C. Tzara, consequences of theory of action at a distance, **3200**
Brainerd, B., with K. Enslein, minimal-noise preamplifier, **1363**
Bramley, E. N., d.f. studies of ionospheric irregularities, **1055**
—— with H. G. Hopkins, relative performances of U-Adcock and wide-aperture direction finders, **143**
Brand, F. A., with others, Si point-contact transistors, forming, **1246**, enhanced α in, **1607**
Brandi, O. H., heating, etc. of the Lokstedt television building, **565**
Brandstaetter, F., Förster probe, self-field distortion in, **1506**, measurement effect of, **2174**
Branin, F. H., Jr, electronic counter for use in interferometry, **1527**
Braun, A. G., with W. Oesterlin, mains-supplied d.c. amplifier, **2345**
Braun, E. H., gain of small horns, **636**
Braun, H. V., transistor oscillator, **687**
Braunbek, W., diffraction by circular aperture, **3536**
Bray, R., and B. R. Gossick, transit-time effect in Ge rectifiers, **888**
Breckenridge, R. G., and W. R. Hosler, electrical properties of TiO_2 semiconductors, **757**
—— with R. K. Cook, anelasticity of quartz, **1838**
Brekhovskikh, L. M., propagation of sound in anisotropic medium, **296**
Bremmer, H., troposphere as propagation medium, **1548**, **1885**
Brenkman, J. A., with F. van der Maesen, solubility and diffusion of Ni in Ge, **3589**
Brenner, M., and H. G. Schmitt, gas-tube filament connections, **3424**
Brentano, J. C. M., and C. Goldberg, electrical conductance of pressed powders, **2439**
Bretscher, M. M., with others, concentration of cyclotron beam of strong-focusing lenses, **3320**
de Bretteville, A. P., Jr, antiferroelectric-ferroelectric phase transition in $PbZrO_3$, **3246**
Brewer, G. R., focusing high-current electron beams, **2262**
Brewer, W. L., J. H. Ladd and J. E. Pinney, brightness modification proposals for televising colour film, **1211**
Bridges, J. E., detection of television signals in noise, **3703**
Bridges, T. J., gas-discharge noise source for 8 mm λ, **2478**
Bridgman, P. W., resistance of 72 elements, alloys and compounds up to 100 000 kg/cm², **1450**; effect of pressure on resistance of Ge, **1466**
Briganti, E., microphony due to vibration of variable capacitor, **75**
Briggs, B. H., and M. Spencer, horizontal movements in the ionosphere, **2945**
Briggs, H. B., and R. C. Fletcher, infrared absorption by free carriers in Ge, **1081**
—— with M. Tanenbaum, optical properties of InSb, **1098**
Briggs, T. H., and F. R. Michael, foreign tube design techniques, **3396**
Bril, A., and H. A. Klasens, efficiency of fluorescence in c.r. tubes, **431**
—— H. A. Klasens and P. Zalm, determination of decay times of phosphors, **1503**
Brillouin, L., negentropy principle of information, **794**; negentropy and information in communication, **3033**
Brimley, K. J., with J. H. L. McAuslan, polycathode counter-tube applications, **350**
Brini, D., and P. Veronesi, decay of space charges in intermittent discharges in Ne and Ar, **2068**
—— and others, amplifier with low dissipation and short rise time, **3507**
Brinkman, J. A., effects of temperature gradients on diffusion in crystals, (**D**)**1837**
Brissonneau, P., variation of diffusion-after-effect field with induction, **3197**
Brock, P., solutions of Rayleigh-type forced-vibration equation, **201**
Brock, R. L., with J. E. Maynard, kerosene-cooled transistors, **71**
Broder, J., with K. Lehovec, semiconductors as solid electrolytes, **3048**
—— with others, crystal growth by tip fusion method, **2708**
Brodin, J., approximation in operational methods, **2156**
Brodribb, B. C., with D. D. Jones, h.f. effects in Ge diodes, **1230**
v. Broecker, O., monitoring and two-channel operation of RIAS transmitter, **1916**
Bronder, O., coupled lines as h.f. transformer, **996**
Bronwell, A. B., and others, vacuum tube detector using large transit angles, **3096**
Brooke, D. A., frequency-shift radiotelegraph equipment, **525**
Brooker, R. A., digital computing techniques for physics, **1319**
Brooks, H., with W. Paul, pressure dependence of resistivity of Ge, **3264**
Brooks, W. L., and others, absorption of mm waves in dielectric solids, **1840**
Broom, T., lattice defects and resistivity of metals, **2117**
Brot, C., measurement of microwave dielectric constant of liquids, **3621**
Broudy, R., and H. Levinstein, h.f. resistance, of thin films, **2696**, of photoconducting films, **2697**
Brouillet, P., and I. Épelboin, electrolytic polishing of Ge and Pt, **455**
Broussaud, G., with J. C. Simon, detection of a radio wave by a ferrite, **2904**
Brown, D. A. H., equivalent *Q* of *RC* networks, (**D**)**672**
Brown, F., and D. Park, magnetic resonance phenomena in ferrites, **2144**
Brown, G. H., N.T.S.C. colour television signal, for chrominance, **1199**, mathematical formulations of, **1199**
Brown, G. W., with L. N. Ridenour, subscription television, **1197**
—— with others, photographic techniques for information storage, **66**
Brown, J., types of wave near guiding surface, **625**; artificial dielectrics, **639**
—— with R. E. Collin, transmission-line matching system, **966**
—— with J. L. Farrands, Boltzmann interferometer, **1865**
Brown, J. N., with J. M. Watts, sweep-frequency investigation in l.f. band, **2396**
Brown, R. A., with others, multiple stratification of F layer at Ibadan, **2668**
Brown, R. H., symposium on radio astronomy, **714**
—— and C. Hazard, model of r.f. radiation from galaxy, **397**; r.f. radiation from spiral nebula M. 81, **1046**; extended r.f. source of extragalactic origin, **1047**; survey of 23 localized radio sources, **1408**; radio survey of Milky Way, **1409**

—— H. P. Palmer and A. R. Thompson, galactic radio sources of large angular diameter, **2657**
Brown, R. K., velocity of sound in ocean, **1646**
Brown, S. B., and W. Petrie, effect of sunrise on reflection height of l.f. waves, **2092**
Brown, S. C., with L. Gould, properties of ionized gases at h.f., measurement of discharge admittance, **205**
—— with D. H. Looney, excitation of plasma oscillations, **2371**
—— with others, resonant-cavity study of semiconductors, **2437**
Brown, W. L., *n*-type surface conductivity on *p*-type Ge, **166**
—— R. C. Fletcher and K. A. Wright, annealing bombardment damage in Ge, **1469**
—— with R. C. Fletcher, annealing bombardment damage in diamond-type lattice, **1477**
Brown, W. T., design of v.h.f. multichannel telephone equipment, **1575**
Browne, I. C., and T. R. Kaiser, radio echo from head of meteor trails, **712**
Brugger, H. R., with others, properties of colloidal ferroelectric materials, $BaTiO_3$, **3244**
Bruijning, H. G., pulse formation and supply for magnetrons, **2061**
Bruin, F., frequency stabilization of reflex-klystron oscillator, **93**
—— with J. C. van den Bosch, cavity wavemeter, **483**; automatic milliwattmeter for e.m. radiation, **1864**
Bruining, H., Physics and Applications of Secondary Electron Emission, (**B**)**2642**
—— with others, television pickup tube for light and X rays, **1935**
Brunetti, C., with L. K. Lee, automatic assembly of electronic equipment, **694**
Brunhart, W., E. Rohner and L. Soós, m.f. interference from fluorescent lamps, **243**
Brunner, F., low-distortion pulse modulator, **1866**
Bruns, R. A., analogue computers for feedback control systems, **982**
Bruzac, J. J., flip-flop chains for computers, **2010**
Bryant, J. H., wave properties of helical conductors, **2300**
—— and E. J. White, attenuation and power-handling capability of helical r.f. lines, **1666**
Bryant, J. M., M. M. Newman and J. D. Robb, protection of aircraft aerials from discharges, **1586**
Bryzzhev, L. D., and V. N. Titov, quartz-tuning-fork-controlled clocks, **3616**
Bube, R. H., S. Larach and R. E. Shrader, poisoning mechanism in ZnS:Mn phosphors, **1782**
Buchholz, W., system design of IBM Type-701 computer, **28**
Buchta, K., television transmitter network for band IV in the Federal German Republic, **3380**
Buck, D. A., and W. I. Frank, nondestructive sensing of magnetic cores, (**A**)**2468**
Buck, R. E., with others, Ge power transistors, **3391**
Buckerfield, P. S. T., parallel-T d.c. amplifier, (**D**)**95**
Buckland, B. O., heat transfer from valves at high altitudes, **3098**
Buder, E. E., J. J. Ruddick and A. H. Weber, photoemission of W in region of predicted Schottky deviations, **155**
Buecks, K. E., with others, improved radio altimeter, **1434**
Buehler, W. J., with J. F. Nachman, 16% Al-Fe alloy cold rolled in order-disorder temperature range, **2456**
Buff, C., four-channel frequency-shift radiotelegraphy, **3038**
Buland, R. N., analysis of nonlinear servos by phase-plane-delta method, **3044**
Bull, C. S., space-charge smoothing factor, **909**; noise of valves, **3080**
Bullen, J. M., and C. H. Cummack, lunar diurnal variations of earth's magnetic field, **2385**
Bullen, M. A., and L. A. Daynse, time-marker for electrocardiography, **2186**
Bulliard, H., photomagnetoelectric effect, in Ge, **2104**, in Ge and Si, **3231**
Bullington, K., reflection coefficients of irregular terrain, **3341**
Buneman, O., self-consistent electrodynamics, **2075**
Burfoot, J. C., correction of e.s. lenses, **824**
Burgess, E., exploring the ionosphere by rocket, **130**
Burgstaller, J., u.s.w. planning in Austria, **1180**
van der Burgt, C. M., M. Gevers and H. P. J. Wijn, measurement of properties of ferroxcube, **207**
Burhop, E. H. S., with H. S. W. Massey, Electronic and Ionic Impact Phenomena, (**B**)**711**
Buritz, R. S., with D. Alpert, limiting factors on attainment of very low pressures, **2102**
—— with others, diffusion of He in glass, **3564**
Burke, H. E., Jr, analogue-to-digital converters, **46**
Burkhardt, G., measurements on corner-reflector aerials, **1999**
Burkhardtsmaier, W., h.f. filters for television transmitters, **361**
Burks, A. W., and J. B. Wright, theory of logical nets, **38**
Burnett, J. H., thyratron power supplies for inductive loads, **262**
Burnham, J., breakdown and leakage resistance of metallized-paper capacitors, **2595**
Burns, D. O., and C. W. Cooper, harmonic-response-testing equipment, (**D**)**1147**
Burns, L., electroluminescence of insulated particles, **1787**
Burnside, D. G., ceramic-to-metal seals of W-Fe type, **2455**
Burr, R. P., electronic masking in colour television, **1205**
Burstein, E., anomalous optical absorption limit in InSb, **2134**
—— and others, infrared photoconductivity due to neutral impurities in Ge, **1808**; optical investigations of impurity levels in Si, **2422**
Burton, J. A., and others, effect of Ni and Cu on recombination in Ge, **2429**
Busch, G., and R. Jaggi, measurement of Hall effect without external field, **1497**
—— and W. Maier, pulse apparatus for ultrasonic measurements in liquids, **3108**
—— and E. Mooser, magnetic properties of grey tin, **1476**
—— and O. Vogt, variation of properties of Sb and InSb at melting point, **3573**
—— and J. Wieland, mechanism of conduction in grey tin, **1475**
—— and U. Winkler, conductivity of intermetallic compounds, **1471**
—— F. Hulliger and U. Winkler, properties of Mg_3Sb_2, **3591**
Bussey, H. E., and G. Birnbaum, variations in atmospheric refractive index, **718**
Butcher, P. N., electrodynamic field equations, **387**
Butler, F., pulse duration modulator circuit, **2532**
Butler, K. H., C. W. Jerome and J. F. Waymouth, electroluminescent lamp, **3636**
—— with others, electroluminescent ZnS phosphors, **1786**
Butt, D. K., efficiency of anthracene scintillation counter, **1160**
Butterworth, J., with others, frequency dependence of mutual conductance of aged oxide-cathode valves, **907**
Buuck, W. P., simplified system of wave analysis, **216**
Byatt, D. W. G., effective polarization on elevated-aerial direction finders, **145**
Byers, W. F., balanced crystal-diode modulator, **881**
Byram, E. T., T. A. Chubb and H. Friedman, solar X rays and E-layer ionization, **1416**
Byrd, J. F., with others, theatre sound system, **1282**
Byrnes, I. F., maritime radio and radar developments, **531**
Bytschkow, S. I., frequency spectra of pulses with varying carrier frequency, **2213**

Cabannes, F., induced electrodeless discharge in Ne, **2915**
Cacheris, J., microwave modulator using ferrites, **3183**
de Cadenet, M. J., reduction of background noise in reproduction of records, **1658**
Cady, W. G., and C. E. Gittings, measurement of power of acoustic source, **943**
Cafflauz, J., with others, standardization of printed circuit materials, **2065**
Cagniard, L., magneto-telluric method for geophysical prospecting, **491**
Cahen, G., perturbations of nonlinear filtered oscillator, **2044**; geometrical integration of nonlinear second-order differential equations, **2162**
Caianiello, E. R., nonlinearities in strong-focusing accelerator, **1529**
—— and A. Turrin, stability and periodicity in strong-focusing accelerator, **1530**
Caillon, P., with J. Granier, dielectric hysteresis and elastic after-effect, **2963**
Cain, C. W., with others, C.B.S. colortron, **1228**
Cain, J. C., auroral radio-echo table and diagram, **416**
Caldwell, J. J., Jr, high-power travelling-wave valve gain and saturation characteristics, **1962**
Callaway, D. B., with others, design of noise-reducing telephone booths, **2844**
Callendar, M. V., impulse noise generators, **2725**
Camfield, G. J., frequency-generating system for v.h.f. communication equipment, **1913**
Camp, L., directional $BaTiO_3$ transducers, **315**
Camp, P. R., resistivity striations in Ge crystals, **2704**
Campbell, I. D., boundary-layer absorption in spherical resonator, **1642**
—— with D. E. Weston, propagation of sound waves in tubes, **612**
Campbell, R. D., path testing for microwave radio routes, **257**
Campbell, W., with others, m.u.f.s for path Washington–Resolute Bay, **1889**
Camras, M., magnetic recording, **2295**
Canac, F., sound waves made visible by schlieren method, **2291**
Capps, F. M., with others, effective ground-conductivity measurements in U.S., **2381**
Carley, W. J., multilayer distributed-constant delay lines, **3157**
Carlin, H. J., and R. La Rosa, synthesis of reactance quadripoles, **993**
Carlisle, R. W., with others, hearing aids, **1664**
Carlson, J. F., and T. J. Hendrickson, variational methods for problems in resistance, **1732**
Caro, D. E., and L. U. Hibbard, oscillator switching for synchrotron control, **496**
—— and L. H. Martin, velocity of sound in air at low pressure, **615**
—— J. Y. Freeman and L. U. Hibbard, servo drive for accurate speed control, **3326**
—— with L. U. Hibbard, stable h.v. source, **1585**
Carpenter, R. O'B., electro-optic sound-on-film modulator, **1663**
Carrara, N., microwave-physics centre at Florence, **1629**, report for 1952, **3430**
Carroll, J. M., electronics in oil industry, **3660**
Carter, R. O., and L. K. Wheeler, code converters for interconnection of Morse and teleprinter systems, **2506**
Case, R. L., and I. Kerney, programme transmission over Type N carrier telephone, **2768**
Cashman, R. J., with D. E. Soule, bulk photoconductivity in PbS, **2103**
Caywood, W. P., Jr, R. C. Lyman and W. M. Kaufman, generalized servomechanism evaluation, (**A**)**3031**
Cazenave, R., magnetic field of conductor, **1391**; reduction of distortion of pulses in uniform coaxial line, **2298**; secondary parameters of coaxial pair, **3125**; common elliptic integrals and functions, **3282**, **3283**
Cederbaum, I., high-speed product integrator, **1313**
Celinski, O., with others, pulling effect in synchronized systems, **2018**
Chahid, W., axial field of Alvarez-type linear accelerator, **3327**
Chait, H. N., with others, nonreciprocal microwave component, **2040**

Chakrabarty, S. K., and R. Pratap, dynamo theory of geomagnetic variations, **2384**
Challice, C. E., proceedings of conference on electron microscopy, **3330**
Chalmers, J. A., charge on ionosphere, **131,** (D)**2663;** atmospheric electricity, **2947,** effective separation of discharging points, **140,** agrimeter for recording field, **1061**
Chambers, D., with others, high-definition general-purpose radar, **1068**
Chambers, R. G., effect of relaxation on measurements of anomalous skin effect, **2625**
Chambers, T. H., and I. H. Page, logarithmic receiver, **3345**
Chandler, C. H., and G. D. Linz, wide-band amplifiers using secondary-emission valves, **367**
Chaney, J. G., mutual impedance of stacked rhombic aerials, **2571**
Chang, S. S. L., filter problem of power-spectrum analyser, **3168**
Chapin, D. M., C. S. Fuller and G. L. Pearson, Si *p-n-* junction photocell for converting solar radiation, **3076**
Chapman, F. W., and W. D. Matthews, a.f. spectrum of atmospherics, **419**
Chapman, R. D., microwave repeater site planning and development, **2771**
Chapman, R. P., and B. W. Currie, radio noise from aurora, **417**
Chappell, D. W. G., L. B. Hainsworth and I. M. Moorat, statistical results on ionospheric storm phenomena, **135**
Chari, S. S., with others, ultrasonic waves in liquids, absorption of, **4, 1274, 1275,** temperature effect of, **5,** frequency dependence of power of radiation, **1272**
Charles, T. G., industrial metal detectors, **3315**
Charlesby, A., electron currents in thin oxide films on Al, **121**
Chase, F. H., B. H. Hamilton and D. H. Smith, transistors and junction diodes in telephone power plants, **3387**
Chaste, R., aerial at Allouis long-wave station, **1677**
Chatten, J. B., photoelectric colorimeter, **1203;** transition effects in compatible colour television, **1208**
Chatterjee, B., F region, regularities of, **407, 2089,** ionization distribution in, **2939;** oblique propagation over a curved earth, **2199**
Chatterjee, J. S., wide-band oscillator with conical-helix tuning indicator, **2342**
—— with G. S. Sanval, measurement of permeability at microwave frequencies, **2467**
Chatterjee, S. K., cavity resonators, **79;** propagation through cylindrical guide with two dielectrics, **328, 1670, 1671, 1992, 2855**
—— with N. N. Biswas, note on Armstrong system of f.m., **246**
Chavance, P., and B. Chiron, transmission of cm waves along wire guides, **1665**
Chavasse, P., and R. Lehmann, acoustic testing of loudspeakers, **8;** international congress on acoustics, **919**
—— and L. Pimonow, comparison of microphone calibrations using pure tones or noise, **301**
—— and P. Riéty, standard test gear developed by Acoustics department of C.N.E.T., **2835**
Cheetham, R. J., E. L. Mather and W. W. H. Clarke, termination for 0·375-in. coaxial cable, **2178**
Chen, H. S. C., effect of Vf on I_a of diode, (D)**3730**
Chen, T. S., output windows for tunable magnetrons, **2307,** broad-banding of, **2857**
Cheng, C. C., transistor equations using h parameters, **2057**
Cherepnev, A. A., with M. N. Aleutsev, absorption and luminescence spectra of ZnS-Cu phosphors, **3239**
Chernosky, E. J., phased-epoch method of analysis, **1049**
Chernyshev, I. N., with others, electron-optical method of imaging objects with magnetic inhomogeneities, **2739**
Cherry, E. C., recognition of speech, **947;** time considered as complex variable, **2025**
Cheston, T. C., secondary beams from metal lenses, **2001**
—— with D. H. Shinn, tolerances in parameters of microwave lenses, **2000**
Cheston, W., with others, statistical estimation in physics, **1370**
Chetaev, D. N., acoustic impedance of moving plane emitter, **3435**
Chhapgar, A. F., with S. Parthasarathy, viscosity and anomalous absorption of ultrasonic waves, **306**
—— with others, oscillations of quartz crystal, **353**
Child, M. R., with others, life of oxide cathodes, (D)**906**
Chinn, H. A., and others, C.B.S. Television City technical facilities, **3052**
Chiplonkar, M. W., waveforms of atmospherics, **1427**
Chiron, B., with P. Chavance, transmission of cm waves along wire guides, **1665**
Chittick, K. A., spurious radiation from television receivers, **3062**
Chlavin, A., matching nonstandard waveguides, **330**
Chodorow, M., and others, high-power pulsed klystron, **580**
Chong, K. Y., with D. A. Bell, current noise in composition resistors, **2328**
Chow, S. H., parallel-connected magnetic amplifiers, **2055**
Chow, W. F., h.f. transistor amplifiers, **2056**
—— and J. J. Suran, transient analysis of transistor amplifiers, **342**
Christ, K., with others, Cologne-Frankfurt-Neustadt television link, **538**
Christensen, H., surface conduction channels in Ge, **3585**
Christiansen, W. N., and J. A. Warburton, distribution of radio brightness over the sun, **715**
Christopher, H. N., with J. M. Barstow, measurement of random video interference, **2790**
Chu, Y., feedback control systems, analysis of, by root-locus method, **1184,** synthesis of, **1185**
Chubb, T. A., with others, solar X rays and E-layer ionization, **1416**
Chuikin, E. I., pulse method of measurement of velocity of ultrasonic waves, **3438**
Church, H. V., remote base station, **855**
Cifuentes, M. G., and O. G. Villard, Jr. r.f. phase-difference networks and polyphase selectivity, **1910**
Clack, G. T., experimental field-strength meter for band III, **2462**
Clapp, J. K., stable LC oscillators, **3170**
Clark, C. B., with S. F. Kaisel, luminescent screen for use with very-low-velocity electrons, **2113**
Clark, E. G., and C. H. Phillips, colour demodulators for television receivers, **2788**
Clark, L. B., Sr, recent developments in G-M counting tubes, **501**
Clark, M. A., acoustic lens as directional microphone, **1659**
—— with H. C. Montgomery, shot noise in junction transistors, **1248**
Clark, W. R., R. E. Watson and G. C. Mergner, universal meter, **2182**
Clarke, E. N., oxygen-induced surface conductivity on Ge, **168**
—— and R. L. Hopkins, conductivity of mechanically disturbed Ge surfaces, **1086**
Clarke, J. O., use of loran for survey work in Pacific, **147**
Clarke, S. L. H., with A. St. Johnston, applications of electronic computor to business accounting, **3140**
Clarke, W. W. H., and J. D. S. Hinchliffe, evaluation of cable irregularities at v.h.f., **1986**
—— and C. W. K. Maysmor, precision waveguide attenuator, **3008**
—— with others, termination for 0·375-in. coaxial cable, **2178**
Clavier, P. J. M., nonlinear distortion of random signal, application to f.m., **1689;** phase distortion due to distortion of f.m. wave, **3350**
Clayden, D. O., with others, Hg-delay-line storage system for ACE computer, **61,** (D)**2012**
Cleland, J. W., and J. H. Crawford, Jr, radiation effects in InSb, **2133**
Clement, L. M., television receiver interference industry record, **3068**
Clement, P. R., Tchebycheff approximation method, **200**
Clemmow, P. C., and J. Heading, coupled forms of equations governing propagation in ionosphere, **3017**
Clogston, A. M., and H. Heffner, focusing of an electron beam by periodic fields, **3099**
Coales, J. F., application of information theory to data-transmission systems, **253,** (D)**1907**
Coblenz, A., and H. L. Owens, theory and application of transistors, **283, 341, 658, 1013**
Cochardt, A. W., method of measuring magnetostriction, **1849**
Cocking, W. T., d.c. component in television, **1220**
Cockle, A., 160-m transistor transmitter, **2254**
Coffeen, W. W., ceramic and dielectric properties of stannates, **191;** quaternary system $BaTiO_3$-$BaSnO_3$-$SrSnO_3$-$CaSnO_3$, **192;** effect of minor constituents in $BaTiO_3$ capacitors, **2594**
Coffin, F. D., and S. L. Simon, e.m.f. developed by creeping Zn crystal, **1022**
Coggeshall, I. S., transmission of intelligence in typescript, **1175**
Cohen, B. L., theory of fixed-frequency cyclotron, **495**
Cohen, J., semiconducting films of Sb, **3270**
Cohen, M. H., bandwidth of cavity aerials, **2862**
Cohn, M., annular resonant slots in circular waveguide, **1672**
Cole, A. W., h.f. communication systems, **3035**
Colin, J. E., image transfer coefficient of ladder-type filters, **997**
Colli, L., and U. Facchini, mechanism of discharge in Ar-filled counters, **1538**
—— and others, dynamics of corona discharge between cylindrical electrodes, **2630**
Collin, R. E., and J. Brown, transmission-line matching system, **966**
Collins, L. E., and O. S. Heavens, magnetic behaviour of single-crystal Ni films, **2442**
Collins, R. J., with others, infrared absorption in *p*-type Ge, **756, 1082**
Colombo, S., calculation of transient distortion, **3494**
Coltman, J. W., specification of imaging properties, **3696**
Combe, R., pass band and dispersion of loaded waveguides, **2302;** attenuation of waveguides with circular irises, **2856**
Combe, R., and M. Feix, magnetic undulator, motion of electron in, **1036,** radiation from, **1037**
Comeforo, J. E., and others, synthetic mica investigations, **784**
Comte, G., and M. Bouderlique, amplitude and phase equalizer for pulse echometer, **3623**
—— M. Bouderlique and G. Thévenet, echometer for testing coaxial cables, **1136**
Confetta, A. M., propagation of e.m. waves in ionized gas, **1038**
Conger, R. L., and L. E. Schilberg, noise discriminator for periodic signals, **2047**
Conn, G. K. T., and H. N. Daglish, simple thermionic vacuum gauge, **2684;** cold-cathode ionization gauges, **3563**
Connon, G. L., with R. G. Barker, periodmeter, **221**
Conway, T. D., measurement of harmonic distortion, **1509**
Conwell, E. M., experimental evidence of degeneracy in Ge, (D)**2427;** high-field effects in Ge, **2976**
—— with P. P. Debye, electrical properties of *n*-type Ge, **2127**
Cook, J. S., R. Kompfner and H. Suhl, travelling-wave valves using ferrite attenuators, **3092**
Cook, K. A., with K. W. Plessner, anomalous temperature coefficient of permittivity in $BaTiO_3$, **2716**
Cook, R. K., and R. G. Breckenridge, anelasticity of quartz, **1838**
Cooper, B. J., with W. R. Bland, high-speed precision tachometer, **1153**
Cooper, C. W., with D. O. Burns, harmonic-response-testing equipment, (D)**1147**
Cope, A. D., and A. Rose, X-ray noise observation using a photoconductive pickup tube, **2240**
Cope, J. E., German radio show, **292**
Coquerel, R., use of Cs vapour in thyratrons, **1264**
Cordray, R., with others, long-line effects on tunable radar, **1433**
Coroniti, S. C., and E. Heaton, conductivity of atmosphere over Pacific Ocean, **2401**

Corrington, M. S., and R. W. Sonnenfeldt, synthesis of constant-time-delay networks, **2882**
Cortellessa, G., and R. Querzoli, optical system for transmission of information, **2481**
Cosens, C. R., tapped inductances, **1328**
Cosslett, V. E., electron microscopy at Cambridge, **2740**
Cotte, M., propagation of pulse in waveguide, **2306;** waves of current without voltage in parallel lines, **2851;** symmetrical quadripole lattice networks, **3491**
Coughanour, L. W., and V. A. DeProsse, phase equilibria in MgO-TiO_2 system, **463**
Counord, R., determination of slope of valve characteristic, **482**
—— with others, integrator and differentiator circuits in acoustics technique, **3437**
Coupiac, P., with others, solar radio-noise storms, **1043**
Cowan, F. A., networks for theatre television, **3049**
Cowley, J. M., new electron microscope principle, **1876**
Craft, L. M., design trends in communication equipment, **1178**
Craggs, J. D., with N. R. McCormick, measurements of relative dielectric strength of gases, **3191**
Craig, L. J., magnetic amplifier as analogue-computer component, **62**
—— with W. H. Libaw, photoelectric shaft digitizer, **812**
Crain, C. M., J. R. Gerhardt and C. E. Williams survey of tropospheric refractive-index measurements for U.S. regions, **2662**
—— A. W. Straiton and C. E. von Rosenberg, statistical survey of atmospheric refractive-index variation, **1759**
Cramwinckel, A., sound equipment in Bussum television studio, **878**
Crawford, G. J. B., with H. J. Moody, electronic ratchet, **3153**
Crawford, J. H., Jr, and D. K. Holmes, chemical approach to treatment of electronic spin in semiconductors, **2623**
—— with J. W. Cleland, radiation effects in InSb, **2133**
—— with D. K. Stevens, magnetic susceptibility of Ge, **1467**
Cremer, L., sound attenuation in duct with absorbent wall, **309;** sound propagation in structures, **1277**
Creusot, J., variation of permeability with mechanical stress, **2440**
—— and A. Langevin, definition of ferromagnetic state with maximum stability, **1102**
Crompton, R. W., L. G. H. Huxley and D. J. Sutton, motion of slow electrons in air, and application to ionosphere, **106**
Crone, W., with H. Bosse, slotted-cylinder aerial for 174–216-Mc/s band, **562**
Cronemeyer, D. C., with others, refractive index of Ge measured by interference method, **2131**
Croney, J., reduction of sea and rain clutter in marine radars, **2953**
Crosby, D. R., duplexing filters for 2 kMc/s, **677**
Crosby, M. G., long-range communication trends, **1172**
Crosman, L. P., Remington-Rand Type 409·2 computer, **36**
Cross, L. E., dielectric properties of $BaTiO_3$ single crystals, **751**
Crowhurst, N. H., design of high-Q iron-cored inductors, **72;** design of constant-resistance crossovers, **675;** attenuator design, **1342**
Crowley, T. H., reciprocity theorems in e.m. theory, **1738**
Crysdale, J. H., diffraction of e.m. waves by aperture in large screen, **2078**
Cullen, A. L., with H. M. Barlow, surface waves, **624**
Culshaw, W., Fabry-Perot interferometer for n.m λ, **211;** spectrometer for mm λ, **1135**
—— and D. S. Jones, effect of metal plate on total reflection, **1039**
Cummack, C. H., with J. M. Bullen, lunar diurnal variations of earth's magnetic field, **2385**
Cunliffe, A., and D. P. Saville, measurement of waveguide impedance, **2172**
Cunnell, F. A., E. W. Saker and J. T. Edmond, semiconducting compound InSb, **1816**
—— with E. W. Saker, intermetallic semiconductors, **2412**
Cunningham, W. J., amplitude variations in f.m. oscillator, **1347**
Curie, D., photoconductivity experiments at high field strengths, **157;** mechanism of electroluminescence, **1373, 1728**
—— with G. Curie, brightness variations in electroluminescence, **2108**
Curie, G., and D. Curie, brightness variations in electroluminescence, **2108**
Curran, S. C., Luminescence and the Scintillation Counter, **(B)1542;** new counters, **2193**
Currie, B. W., with R. P. Chapman, radio noise from aurora, **417**
—— with A. G. McNamara, radio echoes during aurora, **3222**
Currie, M. R., degenerate modes in spherical cavity, **78**
Curtis, G. C., nomograms for sound ranging, **3561**
Curtis, J. F., with others, responding to one of two simultaneous messages, **2837**
Curtis, R. C., with F. W. Roberts, audio a.v.c. systems, **1724**
Cutler, A. E., analogue computers in aircrew training apparatus, **3477**
Cutler, C. C., mechanical travelling-wave oscillator, **3093**
Cutler, S., with others, travelling-wave valves, **3086**
Cutolo, M., geomagnetic field in E layer, **720, 2084;** interaction between waves and free electrons, **1167;** resonance curves of motion of electrons in upper atmosphere, **1168**
Cutteridge, O. P. D., analysis and synthesis of networks, **663;** monotonic transient response, **2031;** simple derivation of Nyquist's criterion, **3489**

Dagg, M., with A. Maxwell, drift movements in upper atmosphere, **3557**
Daglish, H. N., with G. K. T. Conn, simple thermionic vacuum gauge, **2684;** cold-cathode ionization gauges, **3563**
Daguillon, J., with F. Lenouvel, fatigue in electron-multiplier photocell, **3077**
Dahlman, B. A., application of Brewster's angle to the design of coaxial-line components, **2852**
Dain, J., and I. A. D. Lewis, adiabatic theory of electron gun for crossed-field devices, **3727**
Dainelli, D., and E. Aparo, recent electronic computers, **642**
Dairiki, S., T. E. Lawrence and R. A. Mapleton, equivalent-network representations for delay lines, **989**
Dakin, T. W., with C. N. Works, dielectric breakdown of SF_6, **(A)198**
Dalton, W. M., a.c. voltage stabilizers, **3047**
Daniel'-Bek, V., A. Voronin and N. Roginskaya, thermoelectric generator TGK-3, **2514**
Danner, H., with others, phase transitions in ferroelectric $KNbO_3$, **2115**
Danos, M., and others, Cherenkov effect at microwave λ, **1392**
Darner, C. L., suppression of flexural vibrations of $BaTiO_3$, **2280**
Darr, J. H., with others, metal ultrasonic delay lines, **2014**
Darrow, K. K., solid-state electronics, **2354**
Darwin, C., electron inertia and terrestrial magnetism, **2382**
Das, A. K., and B. N. Bhargava, radio noise bursts from solar M regions, **1044**
—— and K. Sethumadhavan, eruptive prominence and associated radio noise burst, **393**
Das Gupta, M. K., with R. C. Jennison, fine structure of radio source Cygnus I, **1410**
Dash, W. C., optical absorption and photoconduction in BaO crystals, **1115**
Date, M., ferromagnetic resonance in polycrystalline ferrities, **2713**
Davids, N., optic axes and critical coupling in ionosphere, **412**
Davidson, P. M., mobility of electrons with mean free path varying with velocity, **2072**
Davies, M. W. H., and G. R. Slemon, transformer-analogue network analysers, **983**
Davies, R. D., radio observations at time of solar prominence, **392**
—— with J. H. Piddington, thermal radio emission from sun, **2645**
—— with D. R. W. Williams, measurement of distance of radio stars, **3205**
Davies, R. O., and G. O. Jones, thermodynamic and kinetic properties of glasses, **197**
Davis, L., Jr, and L. G. Rubin, dielectric properties of $(BaSr)TiO_3$, **783**
Davis, L. L, electronic air-war game, **2187**
Davis, R. C., detection of sure signals in noise, **1900;** detectability of random signals in noise, **3031**
Davis, R. E., with C. Goldberg, new galvanomagnetic effect, **3253**
Davis, S., electrical resolvers, **337**
Davisson, J. W., with others, infrared photoconductivity due to neutral impurities in Ge, **1808;** optical investigations of impurity levels in Si, **2422**
Davy, N., with H. J. Peake, magnetic fields of uniformly magnetized ellipsoids of revolution, **116**
—— with W. Snowdon, magnetic field, of rectangular pole-pieces, **1388,** between galvanometer pole-pieces, **3004**
Dawe, P. G. M., with G. W. Morris, l.f. band-pass filter, **(D)676**
Dawson, G., and others, Manchester/Kirk o' Shotts television radio-relay system, **2784, (A)3366**
Daykin, P. N., and D. A. Wright, oxide cathodes in accelerating fields, **3407**
Daynes, L. A., with M. A. Bullen, time-marker for electrocardiography, **2186**
Dayton, I. E., F. C. Shoemaker and R. F. Mozley, measurement of two-dimensional magnetic fields, **3297**
Dean, N. J., with others, hearing aids, **1664**
Deb, S., winds in the ionosphere, **732;** decay of emission from oxide-coated cathode, **2264**
De Barr, A. E., with others, semiconductor circuit elements, **439**
Debye, P. P., and E. M. Conwell, electrical properties of n-type Ge, **2127**
—— and T. Kohane, Hall mobility of electrons and holes in Si, **2703**
DeCola, R., R. E. Shelby and K. McIlwain, N.T.S.C. colour television field test, **1199**
Degrois, M., standardization of expression for ultrasonic power, **3106**
Dekhtyar, I. Ya., change of resistance of Ni-Mn alloys in magnetic field, **1820**
Dekker, A. J., energy and temperature dependence of secondary emission of MgO, **3194**
Delano, R. H., target glint in radar tracking, **737**
Delcroix, J. L., static properties of magnetron space charge, **3400**
—— with others, conductivity tensor of electron plasmas, **1031;** solution of Boltzmann's equation for weakly ionized gases, **2910**
Delobeau, F., solar eclipse of 25/2/1952, **1059**
Deloffre, G., É. Pierre and J. Roig, photodianode, **1249**
Deloffre, L., É. Pierre and J. Roig, photodianode, **2543**
DeMaria, V. C., portable high-vacuum system, **747**
Denisse, J. F., and P. Simon, relation between yellow coronal line and geomagnetic activity, **2643**
—— with U. Becker, sunspot control of geomagnetic activity, **2082**
—— with others, conductivity tensor of electron plasmas, **1031;** influence of ionosphere on galactic radiation at 29·5 Mc/s, **2397;** solution of Boltzmann's equation for weakly ionized gases, **2910**
Dennis, A. S., with others, radar evidence of generating level for snow, **2405**
Dennison, R. C., aperture compensation for television cameras, **1927**
Dent, H. B., skeleton slot aerial, **2858**
De Packh, D. C., first-order behaviour of separable oscillators, **2601**
Depp, W. A., with M. A. Townsend, cold-cathode tubes for a.f. signals, **1266**
Deppermann, K., and W. Franz, diffraction at sphere taking account of surface wave, **3537**
DeProsse, V. A., with L. W. Coughanour, phase equilibria in MgO-TiO_2 system, **463**
Deresiewicz, H., with R. D. Mindlin, thickness-shear vibrations of crystal plates with incomplete electrodes, **1698;** suppression of overtones of crystal plates, **1699**

Derosier, R., with others, compressor-expander system of French Post Office, **1725**
Der-Shvarts, G. V., resolution of electron-microscope objectives, **3650**
Deschamps, G. A., reflection coefficients of waveguide junction, **14**; chart for transmission-line problems, **965**; theoretical aspects of microstrip waveguides, (**A**)**2771**
De Socio, M., field in waveguide with absorbent walls, **1993**
Destriau, G., quenching of luminescence by alternating electric fields, **1780**; spectra of multiply activated electroluminescent materials, **2107**
Destriau, M., sensitization of luminescent substances by electric fields, **2959**
Dettinger, D., and R. D. Wengenroth, waveguide spark gap, **800**
Dettman, M. C., automatic-tuning transmitter, **1598**
Deubner, B., and F. Hieber, comparative measurements on luminescent screens for front and back viewing, **2690**
Deutsch, R., detection of modulated noise-like signals, **3031**
Devin, C., Jr, with R. Gunn, raindrop charge in thunderstorms, **413**
Devonshire, A. F., theory of ferroelectrics, **2964**
DeVore, C., effectiveness of shielding materials, **2223**
Devyatkova, E. D., and others, mobility of charge carriers in semiconductors, **163**
Dewhirst, D. W., with J. E. Baldwin, bright radio source in Gemini, **1753**
Dewsnap, G. C., Thévenin's equivalent circuit for investigating transmission-line surges, **3452**
Dexter, R. N., with others, directional properties of cyclotron resonance in Ge, **2423**
Dhar, N. C., with others, F-type radiosonde, **1154**
Diamond, J. M., multiple-feedback audio amplifier, **370**; Wien-bridge oscillator design, (**D**)**3499**
Dias Tavares, A., experiments on thermodielectric effect, **2620, 2621**
Dick, M., transmitting centre at Wavre-Overijse, **2772**
Dickey, F. R., Jr, performance of airborne moving-target indicators, **1066**
Dickinson, J. T., European television, **2780**
Diedrich, H., Hall-effect measurements on CdS crystals, **1813**
Diefenbach, W. W., 1953/1954 German receivers, **515**, for television, **551**
Diemer, G., electric breakdown and light emission in CdS single crystals, **2960**
—— and J. L. H. Jonker, time delay of secondary emission, (**C**)**1601**
—— with others, electroluminescent ZnS phosphors, **2962**
Dieminger, W., radio astronomy, **390**; radio location of meteors, **1749**; action of solar particles in ionosphere, **3550**
Diestel, R., isothermal and adiabatic Hall effect in Se, **2699**
Dieterly, D. C., core materials for magnetic amplifiers, **466**
Dietrich, W., locus-diagram oscillograph for a.f., **219**
Dietsch, C. G., Tangier radio relay system, **1917**
Dillenburger, W., signal/noise ratio and types of interference in picture scanners, **1936**
Dingle, R. B., magnetic properties of metals, **1032**; anomalous skin effect and reflectivity of metals, **2626**
Dirac, P. A. M., new classical theory of electrons, **3187**
Dishal, M., two equations for design of filters, **1336**
Ditchfield, C. R., crystal-mixer design, **890**
Ditzenberger, J. A., with others, diffusivity and solubility of Cu in Ge, **2430**
Divoire, É., P. Hontoy and L. Bosman, receiving aerials for band III television, **3461**
Dmitrakova, G., with others, investigation of paramagnetism of ferrites, **2443**
Dobischek, D., H. Jacobs and J. Freely, self-sustained emission from MgO, **774**
Doebke, W., notes on gyrator problem, **3160**
Dodds, J. W., rapid test method for magnetrons, **1851**
Dodds, W. J., and R. W. Peter, filter helix for travelling-wave valves, **1963**
Doehler, O., and G. Guilbaud, amplification of e.m. waves due to electron beam in crossed fields, **2809**
—— with others, fundamental phenomena in travelling-wave valves, **3085**
Dolan, W. W., W. P. Dyke and J. K. Trolan, field-emission-initiated vacuum arc, **1026**
—— with others, space-charge effects in field emission, **1027**
Donovan, B., magnetoresistance effect in metals at h.f., **2913**
—— and E. H. Sondheimer, galvanomagnetic effects at h.f., **760**
Dorn, A., multidecade counter, **986**
Dörr, J., with A. Walther, transients associated with fundamental transmission functions, **244**
Dorr, R., with J. D. Gow, compatible colour picture presentation with chromatron, **1226**
van Dorsten, A. C., and A. J. J. Franken, methods of measuring magnetic fields, **477**
Dossing, S., interchannel interference in carrier telephone systems, **847**
Douce, J. L., simple analogue divider, **2321**
—— with J. C. West, frequency response of nonlinear feedback systems, **3684**
Dowling, P. H., and J. R. Sewell, effect of organic vapour on secondary emission of phosphors, **2111**
Downing, H. L., properties of quartz crystals, **667, 1696**
Dresselhaus, G., A. F. Kip and C. Kittel, cyclotron resonance in Ge crystals, **1468**
Drexler, J., experimental study of microwave periscope, **2565**
Dröscher, G., pulse-regeneration equipment for television signals, **558**
Drost-Hansen, W., with others, electrical conduction in halide-contaminated ice, **2966**
Drougard, M. E., and D. R. Young, domain clamping effect in $BaTiO_3$ single crystals, **3245**
Drubba, H., and H. H. Rust, underwater spark as sound-pulse generator, **490**; acoustic sea-depth measurements, **1430**
—— with H. H. Rust, underwater spark as sound-pulse generator for echo sounding, **223**
Druet, Y., high-speed bistable device for pulse sharpening, **2329**
Dubec, A., influence of phase in television, **1234**
Dubois, P., and R. Hérou, dielectric strength of solid insulators, **781**
Dukes, J. M. C., with J. N. Holmes, speech-waveform correlator with magnetic-tape delay, **3113**
Dumbleton, M. J., with G. F. J. Garlick, phosphors emitting infrared radiation, **3234**
Dummer, G. W., and D. L. Johnston, new constructional techniques, **101**
Dunaev, Yu. A., and I. P. Flaks, secondary emission due to bombardment with multiple-charge ions, **1383**
Dungey, J. W., electrical discharges in astrophysical systems, **123**; Bailey's theory of sunspot noise, **1400**; solutions of magneto-hydrostatic problem, **1404**; motion of magnetic fields, **3546**
—— and R. E. Loughhead, twisted magnetic fields in conducting fluids, **2636**
Dunlap, W. C., Jr, electrical properties of Au-Ge alloys, **1089**; Ge diodes from spherical pellets, **2795**; diffusion of impurities in Ge, **3260**
—— and R. L. Watters, dielectric constants of Si and Ge, **1803**
Dunnington, F. G., C. L. Hemenway and J. D. Rough, determination of h/e by new method, **2640**
Dunstädter, H., optical absorption and electrical properties of CdO films, **2970**
Durand, É., solution of Kirchhoff's problem for damped waves, **120**; field and induction of point charge, **2353**; general formulae for polarized media, **3198**
Dürr, W., J. Jaumann and K. Seiler, solubility of impurities in Ge single crystals, **1463**
Dutt, P. K., demountable hot-cathode ionization gauge, **2954**
Dyke, E., microwave system for pipeline use, (**A**)**2771**
Dyke, W. P., and others, field-emission-initiated vacuum arc, **1025**
—— with others, field-emission-initiated vacuum arc, **1026**; space-charge effects in field emission, **1027**
Dzherpetov, Kh. A., and A. A. Zaitsev, striated h.f. discharge, **3524**

Eadie, D., EDVAC drum-storage phase system of magnetic recording, **53**
Early, J. M., design theory of junction transistors, **1244**; *p-n-i-p* and *n-p-i-n* junction transistor triodes, **2799**
Earp, C. W., 'ambiguous-index system' of communication technique, (**D**)**1568**
East, S., with F. Spayth, review of sliding contacts, **1557**
Eckart, F., image converters and intensifiers, **2188**; conductivity measurements on Se, **3582**
Eckersley, T. L., spread echoes from ionosphere, **1763**
Eckert, J. P., Jr, digital-computer memory systems, **41**, (**C**)**1316**
Edels, H., with W. A. Gambling, high-pressure glow discharge in air, **2069**
Edmond, J. T., with others, semiconducting compound InSb, **1816**
Edsman, S., and G. Lagerholm, review of AB Svenska Elektronrör valves, **3718**
Edwards, D. B. G., Manchester University high-speed computer, **2577**
—— with others, digital computers at Manchester University, **978**; advances in c.r.-tube storage, **985**
Edwards, P. L., relaxation oscillations in voltage-regulator tubes, **864**
Edwards, W. D., sawtooth and rectangular-wave generators, **1149**
Egerer, K. A., production of gap in magnet systems, **3448**
Egger, A., and G. Pusch, disk-seal-triode amplifiers, **690**
Eguchi, T., with others, ionization of gas by electrons, **703**
Ehinger, P., axial potential, of electron lens, **1877**, of three-electrode lens, **2488**
Ehlers, H., and H. Thies, frequency and common-wave measurements at Wittsmoor, **3680**
Ehrenberg, W., and J. Franks, penetration of electrons into luminescent material, **1784**
Ehrlich, M. J., and J. Short, mutual coupling in linear-slot array design, **2572**
Ehrlich, P., dielectric properties of teflon, **785**
Eimert, H., F. Enkel and K. Stockhausen, notation for electronic music, **3333**
Einsele, T., measurement of time lag in crystal valves, **1516**; pulse permeabilities and losses in magnetic materials, **1826**; relaxation phenomena in high-μ ferrites, **2445**
Eisler, P., foil technique for printed circuits, **374**
Eitel, W., with others, synthetic mica investigations, **784**
Ekelöf, S., and G. Kihlberg, thermistor as circuit element, **3481**
Elbourn, R. D., and R. P. Witt, SEAC and DYSEAC circuit techniques, **39**
Elcock, E. W., P. Rhodes and A. Teviotdale, effects of band shape on magnetic properties, **2140**
Elford, W. G., and D. S. Robertson, measurements of winds in upper atmosphere, **1425**
—— with others, measurements of winds in upper atmosphere, **1424**
Eliason, M., sequentially gated a.g.c., **2677**
Elkin, W. H., u.h.f. oscillators, **684**
Elkina, T. A., with N. S. Akulov, relations between losses and coercive force, **1110**
Ellenwood, R. C., and W. F. Ryan, u.h.f. matching termination, (**D**)**1510**
Elling, W., determination of mechanical impedance of solid bodies, **2554**

Elliott, R. S., theory of corrugated plane surfaces, **2853**
Ellis, R. C., Jr, and S. P. Wolsky, new etches for Ge, **1470**
Ellis, W. C., and J. Fageant, orientation relations in cast Ge, **2123**
—— and E. S. Greiner, production of acceptor centres in Ge and Si, **1460**
Ellison, M. A., $H\alpha$ radiation from solar flares and atmospherics, **1406**
Elmore, W. C., and M. W. Garrett, measurement of two-dimensional magnetic fields, **3295**
El-Sabeh, S. H. M., and J. B. Hasted, dielectric constant of liquid containing spherical particles, **159**
—— with J. B. Hasted, dielectric properties of water in solutions, **109**
El-Shishini, M., with A. E. Mostafa, new method for treating super-regenerative detectors, **2761**
Elsmore, B., with J. E. Baldwin, radio emission from the Perseus cluster, **2652**
Elwert, G., effect of X rays from solar corona on E layer, **726**; ionization processes in plasma, **1045**; generalized ionization formula for plasma, **1387**
—— with H. Siedentopf, r.f. emission from cosmic-ray electrons, **1397**
Embleton, T. F. W., force on sphere in spherical sound field, **1636**, **1637**
—— with G. J. Barber, sawtooth waveforms in sound, **1269**
Emerson, R. C., first-probability densities, **837**
Emslie, A. G., with C. A. Swenson, low-temperature electronics, **1369**
von Engel, A., and G. Francis, ionization phenomena in gases, **701**
—— with G. Francis, growth of h.f. electrodeless discharge, **113**
—— with P. F. Little, hollow-cathode effect and glow discharges, **3526**
Engelmann, H. F., with D. D. Grieg, microstrip for kMc/s range, **1990**
Engstrom, E. W., basic concepts and evolution of colour television, **1199**
Enkel, F., technical equipment of electronic music studio, **3333**
—— with others, notation for electronic music, **3333**
Ennes, H. E., portable synchronizing-signal generator, **2233**
Ennos, J. F., with D. F. Bowers, high-power h.f. broadcast transmitters, **2252**
Enomoto, H., with F. Minozuma, short-period fading due to turbulent ionosphere, **512**, **2752**
Enslein, K., distributed amplifier for nuclear research, **2897**; Type-6218 beam-deflection valve as pulse generator, **3171**
—— and B. Brainerd, minimal-noise preamplifier, **1363**
Epelboin, I., with P. Brouillet, electrolytic polishing of Ge and Pt, **455**
Erath, L. W., bridge-stabilized oscillator, **91**
Erdélyi, A., and C. H. Papas, diffraction by strip, **2350**
Erdle, P. J., valve starvation circuits, **680**
Erickson, R. S., logistics computer, **35**
Ernst, W. P., stable power supplies, **1190**
Esau, A., and D. Prösdorf, determination of material constants for small samples, **3291**
Eshleman, V. R., effect of λ on meteor echo rate, **1750**
—— and L. A. Manning, radio communication by scattering from meteor ionization, **1884**
Essen, L., proposal for aether-drift experiment, **2618**; standard-frequency transmissions, **3289**
Essmann, A., measurement of phase and amplitude variations of transient h.f. phenomena, **2730**
Ettinger, G. M., negative inductance cuts magnetic-amplifier lag, **1011**
Ettlinger, A. B., random sequence switching, **1578**
Eutizi, S., behaviour of sound in room with absorbent walls, **1980**
Evans, J. H., with others, high-definition general-purpose radar, **1068**
Everden, W. A., ferrite rod aerials, **3134**
Ewles, J., and N. Lee, large activator centres in crystal phosphors, **749**
Exner, M. L., investigation of nonperiodic noise processes, **2551**
—— W. Güth and F. Immer, acoustic properties of granular substances in shear-mode vibration, **2274**
Eyfrig, R., abnormal ionospheric absorption during Feb. 1952, **1052**
Eyraud, L., with G. Mesnard, variation of dielectric constant of plastics with field, **752**

Faber, L. P., Jr, with J. L. Glaser, evaluation of polarization diversity performance, **839**
Fabre, J., study of interference from h.v. lines, **520**
Facchini, U., with L. Colli, mechanism of discharge in Ar-filled counters, **1538**
—— with others, dynamics of corona discharge between cylindrical electrodes, **2630**
Fagan, C. P., manufacture of magnetic tapes, **620**
Fageant, J., with W. C. Ellis, orientation relations in cast Ge, **2123**
Fahlenbrach, H., oxidic permanent magnets with preferred orientation, **184**
Fahnestock, J. D., transistor manufacture, **284**
Fairbairn, E. P., design of v.h.f. mobile radio systems, **1914**
Fairbairn, T. E., ionic oscillator, **2887**
Fairhurst, H., flywheel synchronization, **1941**
Fairweather, A., and E. J. Frost, dielectric behaviour of granular semiconducting aggregates, **1107**
Fakidov, I. G., with N. P. Grazhdankina, electrical properties of sulphides of chromium, **1817**
Familier, H., linear u.h.f. discriminator, **237**
Fan, H. Y., effect of traps on carrier injection in semiconductors, **1797**
—— with W. Kaiser, infrared absorption, photoconductivity and impurity states in Ge, **2426**
—— with others, infrared absorption in p-type Ge, **756**, **1082**
Fant, G., speech communication research, **613**
Fark, H., measurement of short time intervals using two photocells, **3617**
Farley, G., with R. Madey, electronic voltage integrator, **2610**
Farmer, F. T., with J. F. Fowler, conductivity induced by X rays, **2135**
Farrands, J. L., and J. Brown, Boltzmann interferometer, **1865**
Farwell, G. W., with others, University of Washington 60-in. cyclotron, **3323**
Fässler, E., a.c. network analyser, **3147**
Fast, J. D., A. I. Luteijn and E. Overbosch, preparation of metals and alloys, **1493**
Favarel, J., with others, steep-fronted-wave generators, **1004**
Favre, R., multistable circuits and decades, **3485**
Fay, R. D., transmission of sound through plates, **307**
Fedida, S., impedance transformation by 4-terminal networks, **3162**
Fedorovich, L. G., with A. A. Kalinvak, effect of electric field on Cu_2O absorption spectrum, **3596**
Fedorus, G. A., with others, photoresistivity of CdS single crystals, **1118**
Feinberg, R., with others, c.r. tube with high writing speed, **1623**
Feingold, W. [R.], colour television, matrix networks for, **1206**, N.T.S.C. system, **1589**
Feinstein, J., stochastic problems in wave propagation, **2746**
Feissel, H., lumped-parameter delay lines, **2030**
Feix, M., with R. Combe, magnetic undulator, motion of electron in, **1036**, radiation from, **1037**
Fejer, J. A., semidiurnal currents and electron drifts in ionosphere, **1420**, (C)**2665**; diffraction of waves in irregular medium, **1730**
Felch, E. P., and J. L. Potter, magnettor current standard, **2718**
Fel'd, Ya. N., induction of currents by moving charge, **1740**
Feldtkeller, R., and W. Nonnenmacher, equivalent circuit diagrams for transducers, **3115**
Felix, M. O., and C. B. Wooster, subscribers' radiotelephone, **3040**
Fellgett, P., current-stabilized photomultiplier power supply, **3688**
Felsen, L. B., and A. A. Oliner, equivalent-circuit parameters for dissipative microwave structures, **1499**; graphical analysis of two-port waveguide junction, (**D**)**3456**
Felsenfeld, G., refinement of Pauling theory of ferromagnetism, **2366**
Felton, A., accuracy of measurement of electrical standards, (**D**)**1125**
Felton, W. W., channel allocation problems in air/ground communications, **2774**
Fenner, E., and O. Schott, possibilities and limitations of image intensification, **2482**
Fergusson, F. A. A., E. W. Guptill and A. D. MacDonald, velocity of sound in glycerol, **1647**
Ferraro, V. C. A., aurorae, **141**
Ferrero, M. A., and G. G. Sacerdote, acoustic impedance measurement, **2553**
Fert, C., J. Lagasse and J. Ollé, multibeam c.r.o., **1624**
Fesenko, E. G., domain structure of $PbTiO_3$, **1447**
—— with others, temperature changes of $BaTiO_3$ single crystals, **1116**
Fetzer, V., Jacobi's sn elliptic function and determination of filter parameters, **85**; new C.C.I.R. resolutions, **1587**; explicit formulae for filters with generalized parameters, **2035**
Févrot, C., and J. F. Ulmo, industrial interference, **3349**
Fialkow, A. D., and I. Gerst, synthesis of transfer functions, (**D**)**1704**
Fickeisen, F. C., and T. M. Stout, analogue methods for optimum servomechanism design, **1183**
Findley, L. D., phantastron computes pulse-width ratios, **976**
Fine, H., ground conductivity map for U.S.A., **3548**
Fink, D. G., N.T.S.C. colour-television standards, **871**; N.T.S.C. monographs, **1199**
Finn, G., evaporation of Cu from Ge, **167**
Finzi, L. A., and R. A. Mathias, magnetic amplifier performs analytical operations, (**A**)**1723**
—— and G. F. Pittman, Jr, magnetic amplifier analysis, **372**
Firestone, W. L., directional coupling with transmission lines, **987**
Fischer, A., electroluminescence of semiconductor phosphors, **3569**
Fischer, F. A., laws of force for magnetic and electric transducers, **953**
Fischer, J. T., with others, recording and reproducing television signals, **2517**
Fischer, K., W. Vesper and G. Vogt, receiver installations for telegraphy and s.s.b. telephony in overseas service, **2500**
Fish, P. E., with others, C.B.S. Television City technical facilities, **3052**
Fisher, J. F., alignment of monochrome transmitter for broadcasting N.T.S.C. signals, **1215**
—— with E. H. Traub, continuous film scanner, **3372**
Fitzpatrick, A. G., p.c.m. system uses special tubes, **373**
Flaks, I. P., with Yu. A. Dunaev, secondary emission due to bombardment with multiple-charge ions, **1383**
Flammer, C., vector-wave-function solution of diffraction of e.m. waves, **708**, (C)**2639**
Fletcher, G. C., ferromagnetic anisotropy and allied effects in Ni, **3603**
Fletcher, H., stereophonic recording and reproducing system, **1281**
Fletcher, R. C., and W. L. Brown, annealing bombardment damage in diamond-type lattice, **1477**
—— and others, spin resonance of donors in Si, **3254**
—— with H. B. Briggs, infrared absorption by free carriers in Ge, **1081**
—— with others, annealing bombardment damage in Ge, **1469**
Flint, H. T., and E. M. Williamson, theory of electron, **2066**, **3188**
Flood, J. E., l.f. compensation for video amplifiers, **2609**, **2898**
Florian, H., radiation from open end of line or waveguide, **1305**
Florida, C. D., and R. Williamson, cold-cathode scaling unit, **2593**
—— F. R. Holt and J. H. Stephen, irradiation of transistors, **1949**
Flory, L. E., and W. S. Pike, particle counting by television techniques, **1882**
—— W. S. Pike and G. W. Gray, camera adapter for television receivers, **1198**
Flottorp, G., effect of electrodes in electrophonic hearing, **304**
Flury, C., with others, dark current of electron multipliers with Cs-Sb photocathode, **2800**
Foch, A., J. Rateau and R. Counord, integrator and differentiator circuits in acoustics technique, **3437**

von Foerster, H., with others, diode characteristic of hollow cathode, **596**
Folberth, O. G., and O. Madelung, conductivity measurements on InSb, **3269**
—— R. Grimm and H. Weiss, electrical properties of InAs, **3268**
Foley, J. S., unilateral four-terminal circuits, **1334**
Foley, T. U., with H. B. Yin, filters using coaxial-line elements, **2338**
Fontanellaz, G., reception of weak a.m. signals with linear detection, **240**; comparison of f.m. and ph.m. for transmitting speech, **1562**
Foot, J. B. L., with E. G. Hamer, recorder of aerial radiation diagrams, **970**
Ford, L. H., with G. H. Rayner, performance of dried and sealed mica capacitors, **2022**
Ford, R. L., differentiating circuits, **669**
Forestier, H., with others, thermomagnetic study of ferrites of Dy and Er, **3274**
Forray, M., with R. D. Mindlin, vibrations of contoured crystal plates, **1697**
Forsbergh, P. W., Jr, effect of pressure on Curie point of $BaTiO_3$, **2116**
Forsyth, P. G., nonstandard radio propagation, **1164**
Fortet, R., propagation in an artificial dielectric, **1685**
Forty, A. J., photographic technique of sound recording on glass disks, **2848**
Fourie, D. J., photoelectric effect in thin Bi films, **773**
Fowler, C. A., Jr, and E. M. Fryer, magnetic domains by longitudinal Kerr effect, **2441**
Fowler, J. F., and F. T. Farmer, conductivity induced by X rays, **2153**
Fox, G. W., microwave and v.h.f. installation for Union Electric system, **2771**
Francini, G., and E. Zaccheroni, *RC* oscillator, **1345**
Francis, G., and A. von Engel, growth of h.f. electrodeless discharge, **113**
—— with A. von Engel, ionization phenomena in gases, **701**
François, P. A., radio and television at 16th Salon national, **1171**
Frank, K., with others, image-orthicon camera tubes, **547**
Frank, M., S. Rabotnick and J. R. Walker, single-core magnetic amplifier analysis, (**A**)**2900**
Frank, W. I., with D. A. Buck, nondestructive sensing of magnetic cores, (**A**)**2468**
Frank, W. J., with others, r.f. structure of photon beam from synchrotron, **3645**
Franken, A. J. J., with A. C. van Dorsten, methods of measuring magnetic fields, **477**
Franks, J., growing Tl-activated alkali halides, **1439**
—— with W. Ehrenberg, penetration of electrons into luminescent material, **1784**
Franz, W., with K. Deppermann, diffraction at sphere taking account of surface wave, **3537**
Fraser, H. J., r.m.s.-sensitive phase-shifting circuit, **2324**
Fraser, R. M., 35-mm kinescope recording camera, **3695**
Frayne, J. G., and E. W. Templin, stereophonic recording and reproducing equipment, **1279**
Freas, R. R., airborne loran receiver AN/APN-70, **2678**
Fredendall, G. L., susceptibility of monochrome and colour television to interference, **570**; delay equalization in colour television, **1210**
—— and W. C. Morrison, effect of transmitter characteristics on N.T.S.C. colour television signals, **1199**
Frederikse, H. P. R., thermoelectric power of Ge, **1093**
Freedman, S., tuned microwave reflectors, **21**; microwave f.m., **2251**
Freely, J., with others, self-sustained emission from MgO, **774**
Freeman, H., and E. Parsons, time-sharing analogue multiplier, **2319**
Freeman, J. Y., with others, servo drive for accurate speed control, **3326**
Fremlin, J. H., with others, acceleration of heavy ions in fixed-frequency cyclotron, **3322**
Freymann, M., and R. Freymann, radio spectrum and structure of solids, **2693**, **2694**
Freymann, R., with M. Freymann, radio spectrum and structure of solids, **2693**, **2694**
Friedel, J., thermoelectric power of alloys, **1480**
Friedman, B., and J. Russek, addition theorems for spherical waves, **3281**
Friedman, H., with others, solar X rays and E-layer ionization, **1416**
Frimer, A. I., with I. G. Stoyanova, image formation in electron microscope, **2192**
Fritts, E. C., 16-mm projector for operation with a television camera, **268**
Fritzsche, C., semiconductor properties of Cu_2O, **2432**
Friz, W., microwave-noise generator in coaxial-line form, **1858**
Frizzell, C. E., engineering description of IBM Type-701 computer, **29**
Frood, D.G., titanates as thermoelectric transducers, **2911**
Froome, K. D., microwave interferometer for determining velocity of e.m. waves, **3016**
Frost, E. J., with A. Fairweather, dielectric behaviour of granular semiconducting aggregates, **1107**
Frost-Smith, E. H., magnetic inverter for amplification of low-input-power d.c., **73**
Fründt, H. J., reliability of u.s.w. link with range far beyond horizon, **2498**
Früngel, F., monitoring high-speed phenomena, **3319**
Fry, D. B., experimental study of speech, **2555**
Fry, R. B., with W. J. Fry, determination of sound levels by thermocouple probes, **2836**
Fry, W. J., and R. B. Fry, determination of sound levels by thermocouple probes, **2836**
—— with Welkowitz, characteristics of radiating variable-frequency crystal systems, **2281**
Fryer, E. M., with C. A. Fowler, Jr, magnetic domains by longitudinal Kerr effect, **2441**
Fujimura, T., with others, *g* factor of Ni ferrite aluminate, **2985**
Fukuroi, T., S. Tanuma and Y. Muto, electrical properties of Te crystals at low temperatures, **2702**
Fukushima, N., and T. Oguti, theory of Sp field, **2941**
Fuller, C. S., and others, diffusivity and solubility of Cu in Ge, **2430**
—— with G. L. Pearson, Si *p-n* junction power rectifiers and lightning protectors, **2226**
—— with J. C. Severiens, mobility of impurity ions in Ge and Si, **1802**
—— with others, Si *p-n* junction photocell for converting solar radiation, **3076**
Fünfstück, H., picture-mixing desk, **568**
Furst, M., and H. Kallmann, fluorescence of NaCl(AgCl) with high-energy irradiation, **1070**
Furth, H. L., new aether drift experiment, **1726**
Furutsu, K., theory of diffraction of e.m. waves by mountains, **229**
Fyler, N. F., W. E. Rowe and C. W. Cain, C.B.S. colortron, **1228**

Gabor, D., and C. V. Nelson, resultant dipole of heart from measurements on body surface, **2735**
Gabriel, W. F., automatic impedance recorder for X band, **3629**
Gade, D. W., feedback in junction-transistor circuits, **2874**
Gaillard, A., transmitting stations at Sélestat and Allouis, **886**
Galkin, L. N., and N. V. Korolev, infrared photoluminescence of PbS, **2691**
Gallet, F., measurement of speed of transport of magnetic tape, **1662**
Gallonio, A., with J. S. Auld, pulse distribution in television-network origination, **3379**
Gal'perin, F., magnetic moments of ferromagnetic metals and alloys, **1484**
—— G. Dmitrakova and L. Molodtsova, investigation of paramagnetism of ferrites, **2443**
Galt, J. K., W. A. Yager and F. R. Merritt, temperature dependence of resonance line width in Ni-Fe ferrite, **2446**
Gambling, W. A., and H. Edels, high-pressure glow discharge in air, **2069**
Gamson, E. R., A. Henesian and R. W. Remington, fabrication of printed circuits, **2906**
Gaponov, A. V., and M. L. Levin, theory of thin aerials in endovibrators, **2863**
Gardner, F. F., and J. L. Pawsey, study of D region using partial reflections, **132**
Gardner, F. M., l.f. selective amplifier, **1362**
Garlick, G. F. J., luminescence of inorganic phosphors, **2958**
—— and M. J. Dumbleton, phosphors emitting infrared radiation, **3234**
—— with G. T. Wright, characteristics of radioluminescence in crystals, **2112**
Garner, W. R., technique for loudness measurement, **1652**
Garoff, K., with I. Reingold, measurements of gas temperature of low-pressure r.f. discharge, **3423**
Garreta, O., with P. Aigrain, theory of photomagnetomechanical effect, **2414**
Garrett, M. W., with W. C. Elmore, measurement of two-dimensional magnetic fields, **3295**
Gässler, G., threshold for sounds with frequency spectrum of various widths, **3110**
Gatti, E., multichannel pulse analyser, **2016**
—— with others, dynamics of corona discharge between cylindrical electrodes, **2630**
Gaume-Mahn, F., Gd-Mg alloys, **185**
Gauthé, B., e.s. spectrograph developed from electron microscope, **3655**
Gautier, P., calculation of paths in electron-optical systems, **1537**
Gautier, T. N., Jr, and C. J. Sargent, likelihood of interference at 30–42 Mc/s in Alaska, **2204**
Gavreau, V., and M. Miane, ultrasonic generators, **2550**; nonisotropy of acoustic radiation pressure, **2834**
Gea Sacasa, R., ionospheric propagation, **2493**; difficult predictions discussed at the C.C.I.R., **3664**
Geballe, R., and M. L. Reeves, breakdown in electron-attaching gases, **1380**
Geballe, T. H., and G. W. Hull, Seebeck effect in Ge, **3262**
van Geen, J., vector analyser, **217**
Gel'berg, A., with G. V. Spivak, electron emission from Ni, **2071**
Gemperle, H., loudspeaker-microphones, **316**
Genkin, N. M., and G. P. Priporova, transverse thermomagnetic effect, **2928**
Gent, A. W., transient response of r.f. and i.f. filters to a wave packet, (**D**)**2037**
George, S. F., and A. S. Zamanakos, comb filters for pulsed radar, **2884**
George, W. D., need for new type of frequency and time standard, **3615**
Gerard, V. B., three-component aeromagnetometer, **128**
Gérardin, L., minimum usable signal in radar reception, **2098**
Gerber, E. A., measuring constants of piezoelectric vibrators, (**C**)**1520**; crystal grinding, **2150**
Gerber, O., sound attenuation in duct with absorbent wall, **310**
Gerhardt, J. R., with others, survey of tropospheric refractive-index measurements for U.S. regions, **2662**
Gerjuoy, E., and M. A. Biondi, dissociative recombination in E layer, **405**
—— and D. S. Saxon, variational principles for acoustic field, **3105**
Gerson, N. C., auroral interaction, **832**; solar-terrestial relations, **1751**; energy and duration of sudden ionospheric disturbance, **3551**
Gerst, I., with A. D. Fialkow, synthesis of transfer functions, (**D**)**1704**

Gertsenshtein, M. E., oscillations in gas discharge, **2369**; energy correlations in space-dispersive media, **3663**
Geschwind, S., with others, Cherenkov effect at microwave λ, **1392**
Gevers, M., with others, measurement of properties of ferroxcube, **207**
Ghandhi, S. K., transistor power amplifiers, **2059**
Ghose, R. N., and W. G. Albright, v.h.f. field intensities in diffraction zone, **2753**
Ghosh, D. K., absorption of u.h.f. waves by substituted benzenes, **2373**
Ghosh, M., separation between F_1 and F_2 layers, **2938**
Giacoletto, L. J., bridges measure transistor parameters, **480**; transistors for audio output circuits, **1247**
Gibbings, D. L. H., and A. M. Thompson, gain stability feedback amplifiers, **1361**
Gibbs, G. R., with others, LEO, **3473**
Gibson, A. F., injected absorption in Ge, **169**
—— with J. W. Granville, reduction of rectifier noise by illumination, **1603**
Gibson, W. T., thermistor production, **1327**
Gilbert, E. G., with E. O. Gilbert, capacitively coupled field mapper, **213**
Gilbert, E. O., and E. G. Gilbert, capacitively coupled field mapper, **213**
Gilford, S. R., direct-indicating recording instruments, **2176**
Gillam, C., high-power aerial switching, **3035**
Gillies, A. W., variational equations of van der Pol, **3498**
Giner, J., and E. Lange, electron emission voltages of Au, Pt and Pd, **1385**
Ginther, R. J., sensitized luminescence of CaF_2 : (Ce + Mn), **3236**
Gintsburg, M. A., gyrotropic waveguide, **2564**; propagation of e.m. waves in gyrotropic medium, **2927**
Ginzbarg, A. S., with H. M. James, band structure in impurity semiconductors, **2413**
Ginzton, E. L., with others, high-power pulsed klystron, **580**
Gittings, C. E., with W. G. Cady, measurement of power of acoustic source, **943**
Glaisher, R., screening materials for television interference suppression, **2530**
Glaser, J. L., and L. P. Faber, Jr, evaluation of polarization diversity performance, **839**
Glaser, W., image formation in electron microscope, **2740**
—— and P. Schiske, wave-mechanics basis of electron optics, **499**; image distortion due to pole-piece asymmetry, **1157**
Gleissberg, W., revised data for sunspot curve, **2081**
Glenn, A. B., noise reduction by feedback in r.f. amplifiers, **2899**
Glennie, A. E., with N. Houlding, experimental investigation of grid noise, **1261**
Glinz, C., field strengths of WWV transmissions at Châtonnaye, **3668**
Gloystein, E. E., and A. H. Turner, colorplexer, **1193**
Gluck, S. E., and others, design of or-and-or pyramids, **40**
Gnanalingam, S., apparatus for detection of weak ionospheric echoes, **3219**
Gobrecht, H., and A. Bartschat, properties of CdS single crystals, **1814**
—— and D. Hahn, luminescence of alkaline-earth polysulphides, **750**
—— and H. Hamisch, frequency dependence of conductivity of polycrystalline Se, **1800**
—— and W. Kunz, darkening and luminescence of ZnS, **1438**
—— and F. Speer, secondary emission from impurity semiconductors, **762**
—— D. Hahn and H. E. Gumlich, electroluminescence of phosphors, **2110**, temperature dependence of, **2109**
—— D. Hahn and H. J. Kösel, photoconductivity of phosphors, **1437**, effect of illumination intensity, etc. on, **1776**
Godefroy, A., receiver for time signals, **518**
Godel, N. A., with R. D. Holland, monitor of microwave-receiver noise factor, **3290**
Godley, P. F., J. R. Neubauer, and D. R. Marsh, New Jersey turnpike highway communication system, **2769**
Goertz, M., with others, stressed ferrites having rectangular hysteresis loops, **2586**
Goff, K. W., variable time-delay device, **322**
Golay, M. J. E., direct method of filter and delay-line synthesis, **1707**
Gold, B., and G. O. Young, response of linear systems to non-gaussian noise, **3031**
Gold, L., relativistic trajectories of charged particles, **3203**; relativistic dynamics of charged particl- in magnetron, **3401**
Goldberg, A. E., with G. R. Mitchell, further evidence for the energy gap of PbS, **2436**
Goldberg, C., and R. E. Davis, new galvanomagnetic effect, **3253**
—— with J. C. M. Brentano, electrical conductance of pressed powders, **2439**
Goldey, J. M., with others, resonant-cavity study of semiconductors, **2437**
Goldsmid, H. J., thermal and electrical conductivity of semiconductors, **2968**
Goldsmith, F. H., and J. A. Widdicks, mains-operated psophometer, **805**
Gomard, P., tankless low-frequency transmitter, **2533**
Gondry, R., combined 625/819-line receiver, **3060**
Gonorovski, I. S., fluctuating character of establishment of oscillations in oscillator, **2341**
Good, W. E., colour synchronization in N.T.S.C. colour receiver, **1588**
Goodell, C. E., improved demodulator for radar ranging, **2681**
Goodman, C. H. L., semiconducting compounds and scale of electronegativities, **2698**
Goodman, G., ferroelectric properties of $Pb(NbO_3)_2$, **1448**
Gordon, A. N., and E. H. Sondheimer, theory of anomalous skin effect in metals, **1733**
Gordon, B. M., with others, operational-digital feedback divider, **2322**
Gordon, C. C., with M. L. Greenough, parachute-borne telemetry system, **2744**
Gordon, R. L., analogue computing circuit for ratio of slowly varying potentials, **3148**
Gordy, W., with R. M. Hill, Zeeman effect and O_2 microwave line breadths, **2372**
—— with W. C. King, 1–2-mm wave spectroscopy, **2079**
Gornyi, N. B., energy distribution of secondary electrons from Cu crystals with Cu_2O crystal coating, **2918**
—— and L. M. Rakhovich, circuit for determining energy distribution of secondary electrons, **3527**
Gorozhankina, A. A., locating inhomogeneities in ionosphere, **1762**
Gorter, E. W., ionic distribution deduced from g-factor of ferrimagnetic spinel, **1831**
Gösele, K., sound radiation from plates in flexural vibration, **949**
Gossard, E. E., with L. J. Anderson, effect of oceanic duct on microwave propagation, **233**, **1552**
Gossick, B. R., post-injection barrier e.m.f. of p-n junctions, **887**
—— with R. Bray, transit-time effect in Ge rectifiers, **888**
Gottschalk, W. M., with others, noise in c.w. magnetrons, **579**
Goubau, G., designing surface-wave transmission lines, **1988**
Goudal, P., stabilization problems in physics, **862**; selection of Ge rectifiers, **3712**
Gould, L., and S. C. Brown, properties of ionized gases at h.f., measurement of discharge admittance, **205**
Gourski, E., measurement of pressure by capacitor indicator, **3332**
Gow, J. D., and R. Dorr, compatible colour picture presentation with chromatron, **1226**
Gozzini, A., and E. Polacco, dielectric constant of gases at u.h.f., **1133**, **1134**
Graffi, D., waveguides with nonhomogeneous dielectric, **3457**
Graham, G. M., velocity of sound in liquids, **1649**
Gramels, J., Se rectifiers, **1191**
Grammer, G., colour television and the amateur, **1558**
Granger, J. V. N., flush aerials for aircraft, **1995**
Gränicher, H., and O. Jakits, dielectric properties of perovskite-type mixed crystals, **3572**
Granier, J., and P. Caillon, dielectric hysteresis and elastic after-effect, **2963**
Granville, J. W., and A. F. Gibson, reduction of rectifier noise by illumination, **1603**
Grasl, H., circuits for generating pulses, **3503**
Gratian, J. W., core structures for electron-beam reproducing head, **1985**; magnetic-tape pickup, **3449**
—— with others, electron-beam head for magnetic-tape playback, **11**
Grattidge, W., and A. A. Shepherd, negative-ion emission from oxide-coated cathodes, **2816**
Grawert, G., and H. Lassen, evaluation of ionospheric observations, **2664**
Gray, G. W., aircraft receiver for V.O.R.-I.L.S. and communications, **2676**
—— with others, camera adapter for television receivers, **1198**
Gray, H. J., Jr, P. V. Levonian and M. Rubinoff, analogue-to-digital converter, **47**
—— with others, design of or-and-or pyramids, **40**
Gray, M. C., Legendre functions of fractional order, **1496**
Grazhdankina, N. P., and I. G. Fakidov, electrical properties of sulphides of chromium, **1817**
Graziano, V., and K. Schlesinger, electronic scanner for 16-mm colour film, **3058**
Green, H. S., and E. Wolf, scalar representation of e.m. field, **1739**
Green, M., with others, shapes of floating liquid zones, **1804**
Greenberg, H., with others, travelling-wave valves, **3086**
Greenhow, J. S., wind measurements at altitude 80–100 km using meteor-trail echoes, **3218**
Greenough, M. L., and C. C. Gordon, parachute-borne telemetry system, **2744**
Greenquist, R. E., and A. J. Orlando, analysis of passive-reflector aerial systems, **2866**
Greenspan, M., dispersion of sound in gases, **1632**
—— with others, subharmonic crystal oscillators, **2048**
Greenwald, S., R. C. Haueter and S. N. Alexander, SEAC, **32**
Greig, J. H., with others, absorption of mm waves in dielectric solids, **1840**
Greinacher, H., e.s. voltmeter with linear indication, **1513**
Greiner, C., investigations of magnetic-reversal domains, **448**
Greiner, E. S., with W. C. Ellis, production of acceptor centres in Ge and Si, **1460**
Greiner, J., pre-echo and post-echo in print-through effect, **1288**
Gremmelmaier, R., and O. Madelung, preparation of single crystals of semiconductor compounds, **2138**
Grey, G. H., experiments with miniature power triodes, **2895**
Grey, L. E., and R. O. Jenkins, electrophoresis in valve industry, **3720**
Grieg, D. D., and H. F. Engelmann, microstrip for kMc/s range, **1990**
Grier, G. W., Jr, information content of air/ground messages, **2773**
Griffiths, H. V., B.B.C. receiving station at Tatsfield, **2210**
Griffiths, J. W. R., with D. G. Tucker, detection of pulse signals in noise, **150**
Grignon, L. D., experiment in stereophonic sound, **1278**
Grimbaldeston, W., v.h.f. transmitter for f.m., **883**
Grimes, M. J., A. C. Grimm and J. F. Wilhelm, improvements in R.C.A. three-beam shadow-mask kinescope, **1227**
Grimm, A. C., with others, improvement in R.C.A. three-beam shadow-mask kinescope, **1227**
Grimm, R., with others, electrical properties of InAs, **3268**
Grimsley, J. D., with others, metal ultrasonic delay lines, **2014**
Grinberg, G. A., and B. E. Bonshtedt, exact theory of wave field of transmission line, **1989**

—— and others, field problem for parabolic reflector, **2867**
Grisdale, R. O., formation of black carbon, **775**; properties of carbon contacts, **1113**
Gronberg, H. C., with J. G. Reddeck, colour-television converter for cable networks, **536**
Gross, B., theory of thermodielectric effect, **3186**
Gross, E. P., with others, model for collision processes in gases, **2633**
Grossetti, E., with R. Lucas, mechanical action of ultrasonic waves on obstacles, **1273**
Grosskopf, H., sensitivity limits for capacitor microphone, **317**
Grosskopf, J., statistical investigations of s.w. transmissions, **513**
Grümm, H., electron and ion beams with circular paths, **1382**; intensity distribution over focused spot of electron beam, **2269**; chromatic aberration of electron lenses, **2487**
Grunert, W., progress in measurement of mains harmonics, **3001**
de Gruyter, E., pulse measurement with peak-voltage rectifier circuit, **2170**
Gubanov, A. I., effect of strong field in semiconductors, **2416**; diffusion and drift of photoelectrions in illuminated semiconductor, **3578**
Guckenberg, W., distortion due to mechanical disturbances in magnetic recording, **3447**
Guderjahn, C. A., with R. I. Berge, recording fluxmeter, **3002**
Guénard, P., with R. Warnecke, work in France on u.h.f. valves, **901**
—— with others, fundamental phenomena in travelling-wave valves, **3085**
v. Gugelberg, H., cold-cathode decade counter tube, **1265**
Guihaumé, R., M. Sternberg and P. Lacombe, secondary recrystallization textures in soft iron, **447**
Guilbaud, G., with O. Doehler, amplification of e.m. waves due to electron beam in crossed fields, **2809**
Guillon, H., pre-amplifier for measurement of weak electric charges, **1129**
Guiot-Guillain, G., ferromagnetic properties of rare-earth ferrites, **1109**
—— R. Pauthenet and H. Forestier, thermomagnetic study of ferrites of Dy and Er, **3274**
Gumlich, H. E., with others, electroluminescence of phosphors, **2110**, temperature dependence of, **2109**
Gumowski, I., transient response in f.m., **2337**, (C)**3165**
Gunderman, R. J., electronic band-pass filter, **1341**
Gundert, E., experimental determination of c.r. tube characteristic-curve index, **917**
Gundlach, F. W., transit-time effects in diodes, **1972**
Gunn, J. B., measurement of surface properties of Ge, **3261**
—— with others, semiconductor circuit elements, **439**
Gunn, K. L. S., and others, radar evidence of generating level for snow, **2405**
Gunn, R., electric field meters, **3627**
—— and C. Devin, Jr, raindrop charge in thunderstorms, **413**
Gunn-Russell, C., with others, automatic monitoring of broadcast programmes, **857**
Gunter, F. B., power-line carrier equipment, (**A**)**1570**
Gupta, B. K., with others, measurement of upper-air conductivity by radiosonde, **2093**
Gupta, P. K. S., and S. N. Mitra, corpuscular eclipse in F_2 layer, **2673**
Guptill, E. W., with others, velocity of sound in glycerol, **1647**
Güth, W., with others, acoustic properties of granular substances in shear-mode vibration, **2274**
Gutman, A. S., modified Luneberg lens, **3472**
Güttner, W., coupling mechanical and acoustic systems, **923**
Gutzmann, F., choice of characteristic impedance of h.f. cables, **2299**
—— W. Knöpfel and W. Stepp, planning u.s.w. broadcasting networks, **532**

Haantjes, J., and C. J. van Loon, large-screen television projector, **275**
—— and K. Teer, multiplex television transmission, **3692**
Haas, D. L., with P. R. Vance, input/output unit for analogue computers, **49**
Haas, P. H., r.f. permeameter, **1857**
—— with B. Kostyshyn, current-sheet approximations in h.f. magnetic measurements, **3625**
Haberditz, W., with K. Bauer, selective amplifier for 6·25 c/s, **2896**
Hacking, K., with L. Holland, Zn coating of paper for capacitors, **2992**
Haefer, R., gas discharge in transverse magnetic field, ignition voltage of, **112**, ignition mechanism of, **696**, current/voltage characteristic of, **2914**
Hagen, G. B., frequency multipliers using detector circuits, **1353**
Hahn, D., with H. Gobrecht, luminescence of alkaline-earth polysulphides, **750**
—— with others, photoconductivity of phosphors, **1437**, effect of illumination intensity, etc. on, **1776**; electroluminescence of phosphors, **2110**, temperature dependence of, **2109**
Hahn, M., with others, measurement of caustic surfaces of electron lenses, **823**
Haine, M. E., electron-microscope investigations at A.E.I. Research Laboratory, **2740**
Haines, E. R., alternatives to mica, **465**
Haines, H. R., and B. W. Mott, production of fine wires, **1842**
Hainsworth, L. B., with others, statistical results on ionospheric storm phenomena, **135**
Hájková-Jančová, M., general method for frequency-distortion correction, **1324**
Haken, H., interaction between electron and lattice oscillator, **108**, **3517**
Halabi, T., audio transformer design charts, **67**
Hall, G. L., and P. Parzen, measurement of resonant-cavity characteristics, **799**
Hall, J. R., with others, very-high-power long-wave station, **3357**
Hall, L. L., with others, Manchester/Kirk o' Shotts television radio-relay system, **2784**, (**A**)**3366**
Hall, R. N., segregation of impurities during growth of Ge and Si, **2417**
Halliday, R. G., with D. T. McRuer, analysis and synthesis of certain closed-loop servo systems, **2776**
Halsey, R. J., and H. Williams, Birmingham/Manchester/Holme Moss television-cable system, **1195**
Halsted, R. E., and L. R. Koller, electroluminescence in thin films of ZnS:Mn, **1783**
Halvorson, R. L., remote control of standby generator sets, **2771**
Ham, F. S., effect of surface on magnetic properties of electron gas, **1737**
Hamaker, H. C., sequential sampling for attributes, **1846**
Hamer, E. G., and J. B. L. Foot, recorder of aerial radiation diagrams, **970**
—— and R. G. Medhurst, harmonic distortion due to echo signals, **245**
Hamilton, B. H., with others, transistors and junction diodes in telephone power plants, **3387**
Hamisch, H., with Gobrecht, frequency dependence of conductivity of polycrystalline Se, **1800**
Hammatt, H. L., polarity indicator for quartz crystals, **209**
Hammond, P. H., with R. J. U. Ritson, electronic simulator for hydraulic servomechanism, (**D**)**981**
Hamon, B. V., Maxwell-Wagner loss in dielectrics, **780**
Hampson, L., and P. D. Neville, valves for band-III television tuners, **3417**
Hand, B. P., broadband rotary waveguide attenuator, **999**
Händler, W., design of stagger-tuned amplifiers, **3509**
—— and G. Venzke, nomogram for determining sound-absorption coefficient, **3443**
Handley, P. A., and P. Welch, valve noise due to electrode movement, **1970**
Haneman, V. S., Jr, with R. M. Howe, solution of differential equations using the differential analyser, **51**
Hannahs, W., J. Caffiaux and N. Stein, standardization of printed circuit materials, **2065**
Hannay, N. B., with others, moulded thermionic cathodes, **1255**
Hansel, P. G., Doppler-effect omnirange, **745**
Hanson, G. H., H. V. Serson and W. Campbell, m.u.f.s for path Washington–Resolute Bay, **1889**
Harang, L., and B. Landmark, 35- and 74-Mc/s echoes during aurorae and geomagnetic storms, **1771**
Harcombe, D., with C. G. Morgan, initiation of electrical discharges, **385**
Harden, B. N., diffraction of e.m. waves by parallel half-planes, **710**
—— with J. A. Saxton, ground-wave field-strength surveys at 100 and 600 Mc/s, (**A**)**2492**, **3339**
Hardwick, B., large F_2-region disturbance associated with small magnetic disturbance, **133**
Hardy, D. R., with others, c.r. tube with high writing speed, **1623**
Hargreaves, J. K., with W. A. S. Murray, lunar radio echoes and Faraday effect in ionosphere, **2748**
Hariharan, P. S., with S. K. Pramanik, magnetic variations near magnetic equator, **1051**
Harman, J. C., with others, effective ground-conductivity measurements in U.S., **2381**
Harman, T. C., R. K. Willardson and A. C. Beer, Hall coefficient in Ge, **2975**
Harmuth, H., programme control of electronic computer, **977**; transmission of information by integration of coded signals, **2505**
Harnischmacher, E., prediction of ionospheric propagation for distances > 10000 km, **830**
Harp, M. C., M. H. Kebby and E. J. Rudisuhle, compandors in f.m. radio systems with frequency division multiplexing, **2771**
Harrington, R. F., propagation along a slotted cylinder, **1306**
Harris, B., and A. Macovski, symmetrical-transistor phase detector for horizontal synchronization, **2525**
—— with others, improving transient response of television receivers, **1222**
Harris, C. M., building blocks in speech, **945**; speech synthesizer, **946**
Harris, L. A., instabilities in cylindrical magnetron, (**C**)**1253**
Harris, L. H., telephony and telegraphy, **2766**
Harrison, E. R., electrode shapes for cylindrical electron beam, **2268**
Harrison, K. W., unit construction practice applied to line-transmission equipment, **2508**
Harrison, S. E., conductivity and Hall effect of ZnO, **1810**
Hart, A., with L. F. Bates, powder patterns of grain-oriented and single-crystal SiFe, **770**
't Hart, W. J., frequency instability of partially plated crystals, **2340**
Harten, H. U., blocking contacts between Ge and evaporated metal films, **2979**
Hartig, P. A., and J. J. Loferski, infrared refractive index of Te crystals, **2121**
Härtl, H., and F. Rumpel, delay networks for time selection in multichannel systems, **2509**
Hartmann, J., monoscope tube for computer and other applications, **3100**
Hartshorn, L., and F. A. Manning, behaviour of standard cells generating appreciable current, **3359**
Harwood, E. H., introduction to communication theory, **844**
—— with others, ionospheric propagation at 30–65 kc/s over short distances, **2200**
Hasted, J. B., and S. H. M. El-Sabeh, dielectric properties of water in solutions, **109**
—— with S. H. M. El-Sabeh, dielectric constant of liquid containing spherical particles, **159**
Hatch, A. J., and H. B. Williams, secondary-electron resonance mechanism of low-pressure h.f. gas breakdown, **2629**

Hatch, R. A., with others, synthetic mica investigations, **784**
Hatta, T., with Y. Nomura, theory of linear aerial, **2309**
Hatton, J., and B. V. Rollin, electrical properties of InSb at low temperatures, **2981**
Haueter, R. C., with others, SEAC, **32**
Hauffe, K., and O. Tränckler, CaO, an amphoteric semiconductor, **1809**
Haug, A., effect of the radiation condition with complex wave number, **1162**
Hauri, E., triode oscillators with coaxial resonators, **365**
Hauser, A. A., Jr, geometric aspects of least-squares smoothing, **2216**
Hausman, A. H., analysis of dual-diversity receiving systems, **2756**
Hawes, B. K., with P. J. Selgin, temperature prediction in electronic design, **291**
Hawthorne, E. I., e.m. shielding with transparent coated glass, **1922**
Hayasaka, T., K. Masuzawa and M. Suzuki, capacitor microphone Type MK-103, **3444**
Hayashi, T., with K. Ishiguro, refractive index of Ge films irradiated by light, **3265**
Haycock, O. C., with others, bifurcation of the E region, **1054**
Hayhurst, J. D., attenuation of sound propagated over ground, **930**
Hayton, T., C. J. Hughes and R. L. Saunders, telegraph codes and code converters, **2507**
Hazard, C., with K. H. Brown, model of r.f. radiation from galaxy, **397**; r.f. radiation from spiral nebula M.81, **1046**; extended r.f. source of extragalactic origin, **1047**; survey of 23 localized radio sources, **1408**; radio survey of Milky Way, **1409**
Head, J. W., practical calibration adjustments, **796**
Heading, J., with P. C. Clemmow, coupled forms of equations governing propagation in ionosphere, **3017**
Heard, H. G., 20-kV delta function generator, **3173**
Heaton, A. G., with others, improved radio altimeter, **1434**
Heaton, E., with S. C. Coroniti, conductivity of atmosphere over Pacific Ocean, **2401**
Heavens, O. S., with L. E. Collins, magnetic behaviour of single-crystal Ni films, **2442**
Heber, G., quantum theory of ferromagnetism, **1482**
Hector, L. G., and others, hearing aids, **1664**
Hedrick, L. C., microwave frequency standard, **488**
Heffner, H., backward-wave valve, **587,** analysis of, **2812**
—— with A. M. Clogston, focusing of an electron beam by periodic fields, **3099**
Hegyi, I. J., ferromagnetic spinels with rectangular hysteresis loops, **2007**
Heijne, L., P. Schagen and H. Bruining, television pickup tube for light and X rays, **1935**
Heimann, W., punched-card machines as aids in filter calculations, **2883**
Heinecke, E., and H. Hornung, picture and sound transmitters on Feldberg, **562**
Heinemann, K., and K. Langer, Hamburg-Lokstedt television building, **564**
Heirtzler, J. R., electron transit times in Geiger counters, **2742**
Heister, W., frequency dependence of material constants of mixed ferromagnetic bodies, **1486**
Helke, H., mains unit for constant alternating voltages, **2227**
Helmcke, J. G., theory and technique of electron microscope stereograms, **3657**
Helmke, G. E., hairpin-valve backward-wave oscillator, **588**
Helsdon, P. B., home-made transistors, **892**; transistorized megohmmeter, **1515**
Hemenway, C. L., with others, determination of h/e by new method, **2640**
Hemstreet, H. W., with others, resistance of graphite at low temperatures, **1078**
Henderson, C., F. F. Heymann and R. E. Jennings, design and operation of 4·5-MeV microtron, **494**
Henderson, J. C., with J. R. Tillman, thermal properties of point-contact Ge diodes, **282**
Henderson, J. E., with others, University of Washington 60-in. cyclotron, **3323**
Hendrickson, T. J., with J. F. Carlson, variational methods for problems in resistance, **1732**
Hendry, E. D., with others, image-orthicon camera tubes, **547**
Henesian, A., with others, fabrication of printed circuits, **2906**
Henisch, H. K., and F. D. Morten, forward characteristic of injecting area contacts on Ge, **1240**
—— with P. M. Tipple, thermal effects in point-contact diodes, **1241**
—— with others, isothermal Hall effect in semiconductors, **433**
Henissart, M., with J. Aarons, noise in the range 0·5–20 c/s, **722**
Henkels, H. W., and J. Maczuk, anisotropic resistivities of Se crystals, **1076**; properties of microcrystalline Se, **1801**
Henker, H., transistor parameters for weak a.c., **3156**
Hennicke, R., pseudoresonant and phase-shifting quadripoles as frequency-determining elements of *RC* oscillators, **364**
Henninger, P., trends of developemnt for circuit elements, **2062**
Henry, P. S. H., contact electrification, **1377**
Henry, R. L., and C. C. Rayburn, mechanized production of electronic equipment, **693**
Hensman, R., with others, band structure of Si, **3584**
Hereford, F. L., with S. Berko, deflection of high-energy electrons in magnetized iron, **1041**
Hereward, H. G., and M. G. N. Hine, broadbanding waveguide windows, **3455**
Herkart, P. G., and J. Kurshan, resistivity and Hall coefficient of Ge, **454**
Hermach, F. L., and E. S. Williams, multirange a.f. thermocouple instruments, **3300**
Herman, F., energy band structures of diamond and Ge crystals by orthogonalized plane wave method, **2428**
Herold, E. W., new advances in junction transistors, **3071**
Hérou, R., with P. Dubois, dielectric strength of solid insulators, **781**
Herreng, P., pulse echo meter for testing coaxial pairs, **3293**
Herrick, J. F., and F. H. Krusen, ultrasound and medicine, **2285**
Hertwig, H., 2-phase thyratron inverter, **534**
—— and F. N. Wissing, valve generator for low frequencies, **866**
Herzog, W., measure of activity of oscillators, **1002**; very high gain with unmatched transistors, **3513**
Hess, H. A., scattered reflections in s.w. propagation, **3667**
Hesse, E., Se rectifier disks as voltage-dependent resistors, **3689**
Heuer, C., with R. Adler, colour decoder simplifications based on a beam deflection tube, **2244, 2549**
Heuer, C. H., with J. L. Rennick, four-gun tube for colour television, **559**
Heuser, H., receivers for radio teleprinter service, **3670**
—— and H. Pietz, Höhbeck v.h.f. relay station, **539**
Heward, S. C., frequency-shift diplex, **3035**
Hewitt, F. G., with others, design of noise-reducing telephone booths, **2844**
Hewitt, F. J., study of lightning streamers with 50-cm radar, **1063**
Hey, J. S., solar radio emissions at 4 m and solar activity, (A)**2646**
—— and V. A. Hughes, solar radio asymmetry at 4 m λ, **2650**; intensities of radio sources in Cygnus and Cassiopeia, **2651**
Heymann, F. F., with others, design and operation of 4·5-MeV microtron, **494**
Heymann, O., characteristics of planar triodes, **2267**
Heywang, W., model of p-n junction, **1455**
Hibbard, L. U., and D. E. Caro, stable h.v. source, **1585**
—— W. Raudorf and L. Riddiford, wide-band high-power r.f. transformer for Birmingham synchrotron, **69**
—— with D. E. Caro, oscillator switching for synchrotron control, **496**
—— with others, servo drive for accurate speed control, **3326**
Hibberd, F. H., gyro-interaction resonance curves, **1546**
Hibi, T., change of form of oxide particles on activation, **2820**
—— and K. Yada, high-resolution replicas, **3328**
Hieber, F., with B. Deubner, comparative measurements on luminescent screens for front and back viewing, **2690**
Higgins, C. S., with C. A. Shain, background and discrete sources of 18·3-Mc/s cosmic noise, **2656**
Higgins, T. J., and J. G. Levinthal, stability limits for third-order servomechanisms, **1188**
Higgins, T. P., and A. W. Straiton, elliptical resonant cavity operating in TE_{111} mode, **990**
Hill, F. R., 5-kW h.f. multichannel transmitter, **574**
Hill, G. W., with T. Pearcey, programme design for C.S.I.R.O. Mark I computer, **640, 641**
Hill, R. M., and W. Gordy, Zeeman effect and O_2 microwave line breadths, **2372**
Hilliard, J. K., microphones measure high-intensity sound, **320**; loudspeakers and amplifiers for stereophonic reproduction, **1355**
Hills, G., switch-tuned u.h.f.-v.h.f. aerial, **2313**
Hinchliffe, J. D. S., with W. W. H. Clarke, evaluation of cable irregularities at v.h.f., **1986**
Hindman, J. V., with others, observations of 21-cm line from Magellanic clouds, **3544**
Hine, M. G. N., with H. G. Hereward, broadbanding waveguide windows, **3455**
Hines, C. O., electron resonance in ionospheric waves, **2935**
Hines, J. M., V. H. Rumsey and T. E. Tice, design of arrays, **3135**
—— V. H. Rumsey and C. H. Walter, travelling wave slot aerials, **334**
Hinkelman, T. D., and M. H. Kraus, UNIVAC valve programme, **647**
Hinsdale, E. M., Jr, and I. D. Baumel, capacitively tuned u.h.f. television tuner, **1940**
Hinteregger, H., induction phenomena consequent on movement in magnetic fields, **118, 388, 1035**
Hirone, T., S. Maeda and N. Tsuya, automatically recording magnetic balance, **2723**
Hirono, M., diurnal magnetic variations and E-layer conductivity, **3553**
Hirsch, C. J., with W. F. Bailey, quadrature crosstalk in N.T.S.C. colour television, **1199**
Hitschfeld, W., and J. Bordan, errors in radar measurement of rainfall, **2404**
—— and J. S. Marshall, choice of λ for radar weather detection, **2951**
—— with J. S. Marshall, fluctuating echo from randomly distributed scatterers, **741**
Ho, Kuo-Chu, and R. J. Moon, potential plotting for electron-optical systems, **912**
Hochrainer, A., calculating nonlinear networks by use of composite-straight-line characteristics, **649**
Hock, F., application of Faraday effect to measurement of magnetic field, **3296**
Hodges, N. W., with R. L. Russell, application of counter-rotating fields to measuring devices, **2469**
Hodgson, K. G., with others, Manchester/Kirk o' Shotts television radio-relay system, **2784,** (A)**3366**
Hoffman, G. R., with others, advances in c.r.-tube storage, **985**
Hoffman, W. C., 1953 symposium on tropospheric wave propagation, **503**
Hoffmann, A., and F. Rose, CdSe intermediate layers in Se rectifiers, **1819**
Hogan, C. L., with others, low-loss ferrites for 4 kMc/s, **3607**
Hogarth, C. A., injecting properties of emitter contacts and light spots, **1245**
Hogg, D. C., e.m. field near a dielectric lens, **2574**
Höhler, G., photoconductivity of CdS single crystals, (D)**3602**
Hojo, H., and T. Yonezawa, change in geomagnetic declination accompanying intense E, ionization, **410, 2943**
Holbrook, G. W., *RC* oscillators, **685**

Holbrook, J. G., errors in long-range d.f. systems, **736**
Holden, A. N., with others, spin resonance of donors in Si, **3254**
Holland, L., and K. Hacking, Zn coating of paper for capacitors, **2992**
Holland, R. D., and N. A. Godel, monitor of microwave-receiver noise factor, **3290**
Hollis, R., false-alarm time in pulse radar, **2950**
Hollmann, H. E., transistor oscillators, **1718;** internal oscillations and microwaves in transistors, **2540, 3392, 3715**
Holm, W., and W. Werner, television-receiver i.f. according to C.C.I.R. standard, **2520**
Holmberg, E. R. R., rapid fluctuations of geomagnetic field, **1413**
Holmes, D. K., with J. H. Crawford, Jr, chemical approach to treatment of electronic spin in semiconductors, **2623**
Holmes, J. N., and J. M. C. Dukes, speech-waveform correlator with magnetic-tape delay, **3113**
Holmes, M. F., with G. H. Metson, valve performance and interface resistance, **1256**
—— with others, life of oxide cathodes, (**D**)**906**
Holmes, R. W., cementing metal screens to c.r. tubes, **916**
Holshouser, D. F., with others, diode characteristic of hollow cathode, **596**
Holstein, T., with I. B. Bernstein, electron-energy distributions in stationary discharges, **3192**
Holt, A. D., with A. D. Booth, Se rectifier in digital computers, **3146**
Holt, F. R., with others, irradiation of transistors, **1949**
Holzwarth, H., build-up phenomena in minimum-phase networks, **671**
Homer, H. H., R. M. Rulon and K. H. Butler, electroluminescent ZnS phosphors, **1786**
Honda, N., with Y. Watanabe, physical principles in A-type transistor action, **2258**
Hontoy, P., experimental band-pass amplifier, **3510**
—— with others, receiving aerials for band III television, **3461**
Hoogenstraaten, W., chemistry of traps in ZnS phosphors, **429**
—— and H. A. Klasens, properties of ZnS activated with Cu and Co, **430**
Hook, H., with others, viewing storage tube with half-tone display, **1975**
de Hoop, A. T., propagation in bends in rectangular waveguides, **968,** (**C**)**1674**
Hope, E. G., frequency measurement at cm λ, **804**
Hopkins, E. G., self-heating valves, **1971;** self-heating triode for voltage stabilization, **2824**
Hopkins, H. G., and E. N. Bramley, relative performances of U-Adcock and wide-aperture direction finders, **143**
—— and L. G. Reynolds, short-distance propagation at l.f., **1551**
—— with S. B. Smith, h.f. d.f., **735**
Hopkins, R. L., with E. N. Clarke, conductivity of mechanically disturbed Ge surfaces, **1086**
Hopper, G. M., and J. W. Mauchly, programming techniques and computer design, **26**
Horn, F. H., with E. A. Taft, Au as donor in Si, **1805**
Horner, F., Radio Research Special Report No. 26, Measurements of Atmospheric Noise at High Frequencies during the years 1945–51, (**B**)**842;** reception of atmospherics at h.f., **1065;** radio direction finder for locating thunderstorms, **3226**
Hornung, H., with E. Heinecke, picture and sound transmitters on Feldberg, **562**
Horvath, J. S., with others, improving transient response of television receivers, **1222**
Hosler, W. R., with R. G. Breckenridge, electrical properties of TiO_2 semiconductors, **757**
Houghton, W. D., with others, recording and reproducing television signals, **2517**
Houlding, N., noise factor of v.h.f. amplifiers, **369;** noise measurement at v.h.f., **797**
—— and A. E. Glennie, experimental investigation of grid noise, **1261**
Houlgate, H. J., congress on sound recording, Paris 1954, **2560**
House, C. B., flux preset high-speed magnetic amplifier, (**A**)**2054**
Howard, D. D., single-channel frequency-diversity system, **3356**
Howard, L. W., new materials in transformer design, **340**
Howard, R. C., with C. J. Savant, Jr, multiplier for analogue computers, **3476**
Howarth, D. J., and E. H. Sondheimer, theory of electronic conduction in polar semiconductors, **381**
Howe, R. M., and V. S. Haneman, Jr, solution of differential equations using the differential analyser, **51**
—— and R. J. Leite, low-frequency oscillator, **1321**
Howell, P., design of master-oscillator power-amplifier type transmitters, **1597**
Howells, J. D., thyratron inverter, **2224**
Howells, P. W., colour television, concept of transmission primaries in, **1200,** transients in, **1207**
Howlett, B., walkie-talkie for emergency use, **3358**
Hoyaux, M., theory of ionized media, **702**
Hoyle, F., cosmic origin of r.f. radiation, **125,** (**D**)**2379**
Hsieh, Hse-Teh, J. M. Goldey and S. C. Brown, resonant-cavity study of semiconductors, **2437**
Huber, O., determination of electrical constants of liquids at dm λ, **2171**
Hübner, R., v.h.f. transmitting valves, high-power, **2826,** radiation-cooled, **3416**
Huddar, B. B., and others, F-type radiosonde, **1154**
—— with others, measurement of upper-air conductivity by radiosonde, **2093**
Huggins, P., statistical computers applied to industrial control, **3145**
Hughes, C. J., with others, telegraph codes and code converters, **2507**
Hughes, V. A., with J. S. Hey, solar radio asymmetry at 4 m λ, **2650;** intensities of radio sources in Cygnus and Cassiopeia, **2651**
Hughes, W. L., with J. A. Rado, quantitative spectral measurements in colour television, **1202**
Huguenin, E. L., photoemission-type electron microscope, **3656**
Huibregtse, E. J., with others, current carrier lifetimes deduced from Hall coefficient, **1075**
Huke, K., and G. Iwata, effect of field bump in strong-focusing synchrotron, **3014**
Hulburt, E. O., magnetic storms, aurorae, ionosphere and zodiacal light, **2387**
Hull, G. W., with T. H. Geballe, Seebeck effect in Ge, **3262**
—— with others, effect of Ni and Cu on recombination in Ge, **2429**
Hull, J. F., G. Novick and R. Cordray, long-line effects on tunable radar, **1433**
Hull, T. E., and W. A. Wolfe, inverting Laplace transforms, **2159**
Hulliger, F., with others, properties of Mg_3Sb_2, **3591**
Hulm, J. K., dielectric properties of Cd and Pb niobates, **1073**
Hulst, G. D., television receivers using nonsynchronous power, **549**
van de Hulst, H. C., galaxy explored by radio waves, **395**
Humphrey, R. A., with others, synthetic mica investigations, **784**
Humphrey, T. R., remote-control system for f.m. broadcast station, **3043**
Humphreys, H. R., acoustical design of broadcasting studio, **3441**
Humphreys, J. R., naval low-power m.f.-h.f. communications, **3035**
Hunsinger, W., electrical measurement instruments at 1953 Hanover Technical Fair, **208**
Hunter, F. L., and B. N. Slade, h.f. operation of *p*-type point-contact transistors, **2538**
Hunter, I. M., polarization of radar echoes from precipitation, **1773**
Hunter, L. P., current-carrier mobility ratio in semiconductors, **162;** graphical representation of semiconductor Hall effect, **3251**
—— E. J. Huibregtse and R. L. Anderson, current carrier lifetimes deduced from Hall coefficient, **1075**
Hunter, S. C., and F. R. N. Nabarro, propagation of electrons in strained metallic lattice, **1792**
Hupert, J. J., evaluation of f.m. distortion, **1325**
—— and A. M. Reslock, band-pass amplifier alignment, **481**
Hurault, J. L., with G. H. Bast, carrier-current system for short distances, **1177**
Hurst, G. S., and R. H. Ritchie, energy resolution with proportional counters, **500**
Huskey, H. D., and others, SWAC, **31**
Hussey, L. W., semiconductor diode gates, **74**
Husson, R., and R. Saumont, acoustic structure of speech sounds, **944**
Hutter, R. G. E., S. Cutler, and H. Greenberg, travelling-wave valves, **3086**
Hüttmann, E., marine radio equipment made in Eastern Germany, **258**
Huxley, L. G. H., alternative theories of radio-wave interaction, **231**
—— with others, motion of slow electrons in air, and application to ionosphere, **106**
Huysman, F. O., with others, Mn emission in ABF_3 compounds, **1785**
Hyde, F. J., noise spectra of point-contact Ge rectifier, **1602**

Ibing, H. K., German television receivers, **550**
Ikegami, F., with others, microwave fading, **3669**
Ikehara, S., measurement of cathode temperature, **3405**
Imai, T., electron bombardment effect for deposited BaO films, **2819**
Immer, F., with others, acoustic properties of granular substances in shear-mode vibration, **2274**
Incollingo, I., synchronization in time-division multiplex, **3677**
Indjoudjian, M. D., passive networks under transient conditions, **3492**
Infeld, L., and J. Plebanski, electrodynamics without potentials, **2367**
Ingard, U., transmission of sound through stretched membrane, **1634;** theory and design of acoustic resonators, **1644;** near field of Helmholtz resonator, **1645;** perforated facing and sound absorption, **2290;** sound absorption by perforated porous tiles, **2843**
—— and R. H. Lyon, resistance-loaded Helmholtz resonator, **941**
—— with J. M. Andres, acoustic streaming at low Reynolds numbers, **926,** at high Reynolds numbers, **927**
Insalaco, J. J., with others, laboratory receiver for study of N.T.S.C. system, **1229**
Intrator, A. M., use of steel sheet for shielded rooms, **2777**
Ioffe, V. A., dielectric losses in silicate glasses, **2452**
Irmler, H., with H. Arend, light yield of phosphors excited by electron beams, **1442**
Irons, H. R., with E. O. Schonstedt, airborne magnetometer, **719**
Isabeau, J., analogue-type multiplier, **1309**
Isay, W. H., theory of conduction in semiconductors, **1796**
Ishiguro, K., and T. Hayashi, refractive index of Ge films irradiated by light, **3265**
Ishii, Y., with A. Sato, measuring vacuum factor of valves, **3719**
Ishlinski, A. Yu., focusing charged particles, **3541**
Isted, G. A., atmospheric electricity and long-distance v.h.f. transmissions, **2497**
Isupov, V. A., with G. A. Smolenski, phase transitions in solid soultions with ferroelectric properties, **3278**
van Itterbeek, A., and H. Myncke, vibration of plates with damping layer, **948**
—— G. J. van den Berg and W. Limburg, velocity of sound down to liquid-He temperature, **3439**
Ivanov, A. P., luminescence of powdered luminophors, **2956**
Ivey, H. F., solutions of space-charge problem for unusual electrode geometries, **1973,** (**C**)**3095**
Iwai, F., and T. Morinaga, harbour R/T equipment, **3679**
Iwata, G., with K. Huke, effect of field bump in strong-focusing synchrotron, **3014**
Iwayanagi, H., measurement of permittivity of $(Ba,Sr)TiO_3$ in 3-kMc/s region, **193**

Jaccard, C., W. Känzig and M. Peter, properties of colloidal ferroelectric materials, KH_2PO_4, **776**
Jackson, B., D. R. Hardy and R. Feinberg, c.r. tube with high writing speed, **1623**
Jackson, E. D., with others, Si transistor, **3072**
Jackson, P., resistance strain gauges and vibration measurement, **1881**
Jackson, W., Communication Theory, (**B**)**2775**
Jacob, L., and J. R. Shah, trajectories in symmetrical electron lens, **1159**
Jacobs, H., F. A. Brand and W. Matthei, forming Si point-contact transistors, **1246**
—— W. Matthei and F. A. Brand, enhanced α in Si point-contact transistors, **1607**
—— with others, self-sustained emission from MgO, **774**
Jacobs, L., and E. S. Akeley, transverse motion of electron in linear accelerator, **3015**
Jaeschke, F., design of wide-band tuned amplifiers, **1354**
Jaffe, B., R. S. Roth and S. Marzullo, piezoelectric properties of $PbZrO_3$-$PbTiO_3$ solid solutions, **3247**
Jaffe, H., with W. P. Mason, methods for measuring coefficients of crystals and ceramics, **2720**
Jaggi, R., with G. Busch, measurement of Hall effect without external field, **1497**
Jain, S. C., and K. S. Krishnan, temperature along electrically heated thin rod, **2375**
—— with K. S. Krishnan, temperature distribution in heated filament, **2641**
Jakits, O., with H. Gränicher, dielectric properties of perovskite-type mixed crystals, **3572**
Jakobson, M. J., and F. H. Schmidt, proposed double-mode cyclotron, **1872**
—— with J. H. Manley, cyclotron beam energy determination, **3321**
—— with F. H. Schmidt, cyclotron oscillators and shifting inter-dee ground surface, **2190**
James, H. M., and A. S. Ginzbarg, band structure in impurity semiconductors, **2413**
James, R. H., audar, **148**
Jancel, R., and T. Kahan, magneto-ionic theory of weakly ionized gas, **1030**; propagation of e.m. waves, in inhomogeneous antisotropic plasma, **1166**, in homogeneous plasma, **2196**; plasmas, in constant magnetic field and oscillating electric field, **2364**, Maxwellian approximation to general theory of, **3196**
Janin, J., and R. Bernard, luminescent Sb_2O_3, **158**
—— with R. Bernard, luminescent substance with Sb_2O_4 base, **3571**
Janssen, J. H., velocity of sound in a few grams of liquid, **1648**
Jasberg, J. H., improvement of power output from pulsed klystrons, **2548**
Jaumann, J., with others, solubility of impurities in Ge single crystals, **1463**
Javitz, A. E., nonrigid insulating materials, **2151**
Jaworski, Z. E., empirical transient formulae, **3488**
Jean, P., relaxation oscillations, mathematical description of, **3172**, verification of theory of, **3502**
Jekelius, K., with R. Urtel, modulation amplifier and video frequency monitoring equipment, **562**
Jelonek, Z., and R. S. Sidorowicz, band-pass amplifiers, **1720**
—— O. Celinski and R. Syski, pulling effect in synchronized systems, **2018**
Jenkins, D. P., and L. Pincherle, variation principle for electronic wave functions in crystals, **2137**
—— with others, band structure of Si, **3584**
Jenkins, J. L., with G. S. Shaw, nonlinear capacitors for dielectric amplifiers, **100**
Jenkins, J. W., and others, high-definition general-purpose radar, **1068**
Jenkins, R. O., with L. E. Grey, electrophoresis in valve industry, **3720**
Jennings, R. E., with others, design and operation of 4·5-MeV microtron, **494**
Jennison, R. C., and M. K. Das Gupta, fine structure of radio source Cygnus I, **1410**
Jenny, D. A., Ge *n-p-n* alloy junction transistor, **891**
—— with L. D. Armstrong, Ge junction transistors at high temperatures, **1952**
Jerome, C. W., with others, electroluminescent lamp, **3636**
Jervis, E. R., reliability of valves in military applications, **2805**
Jervis, M. W., measurement of very small d.c., **1852**
Jessel, M., natural vibrations of open cavity, **2334**
Jewitt, H. S., wide-band i.f. amplifiers, **1009**
Jickling, R. M., with others, coaxial connectors and their electrical quality, **2460**
Johansson, A., self-contained vibration meter, **3309**
Johnson, A. B., clipper with automatic mark/space-ratio control, **3175**
Johnson, C. M., D. M. Slager and D. Q. King, mm waves from harmonic generators, **2605**
Johnson, E. O., J. Olmstead and W. M. Webster, tacitron, low-noise thyratron, **3732**
Johnson, F. B., and R. S. Pease, pile irradiation of quartz-crystal oscillators, **3610**
Johnson, H. R., wide-band power mixer valve, **1961**
Johnson, J. B., and K. G. McKay, secondary emission, of crystalline MgO, **114**, from Ge, **2132**
Johnson, L. B., increasing average picture brightness in projection television, **276**
Johnson, M. H., lunar height changes and lunar currents in E layer, **3215**
Johnson, P. D., optical properties of MgO in vacuum ultraviolet, **2980**
Johnson, R. A., epoxy resins, **2454**
Johnson, S. J., with others, fused-quartz delay line, **666**
Johnson, S. W., with others, aperture-response testing of projection optical systems, **1594**
Johnson, V. A., and K. Lark-Horovitz, thermoelectric power in semiconductors, **1092**
Johnson, W. C., magnetic amplifier, **98**
Johnson, W. E., analogue computer for radio refractive-index equation, **1760**
Johnson, W. N., with S. B. Batdorf, instability of self-saturating magnetic amplifiers, (**A**)**1365**
Johnston, D. L., with G. W. Dummer, new constructional techniques, **101**
Johnston, R. F., and A. G. Ratz, graphical method for flip-flop design, **2589**
Johnstone, G. G., inductance and dynamic-resistance meter, **3003**
Jona, F., and R. Pepinsky, dielectric properties of double tartrates, **1836**
Jones, D. D., and B. C. Brodribb, h.f. effects in Ge diodes, **1230**
Jones, D. S., eigenvalues of $\varphi^2 u + \lambda u = 0$, **1124**
—— with W. Culshaw, effect of metal plate on total reflection, **1039**
Jones, E., and K. E. Martin, direct-drive scanning circuit, **2523**
Jones, F. L., Radio Research Special Report No. 24, Fundamental Processes of Electrical Contact Phenomena, (**B**)**122**; electrical discharges, **384**; ionization processes in breakdown of gases, **2358**
Jones, G. O., with R. O. Davies, thermodynamic and kinetic properties of glasses, **197**
Jones, M. E., with others, Si transistor, **3072**
Jones, P., stability of feedback systems using dual Nyquist diagram, **2776**
Jones, R. C., speed of response and detectivity of PbS photocells, **1250**; detectivity of photoconductive cells, **1612**
Jones, R. E., with A. P. Mitra, location of ionospheric current system responsible for geomagnetic effects of solar flares, **1423**; with A. P. Mitra, enhancement of ionospheric ionization during solar flares, **2672**
Jones, R. J., and A. Zucker, sources of multiply charged N ions, **3642**
—— with R. S. Livingston, ion source for cyclotrons, **3644**
Jones, R. N., with others, effective ground-conductivity measurements in U.S., **2381**
Jones, T. A., and W. A. Phelps, level compensator for telephotograph systems, **879**
Jones, T. B., with B. H. List, r.f. oscillations in the d.c. carbon arc, **389**
Jongenburger, P., extra-resistivity due to vacancies in Cu, Ag and Au, **1794**
Jonker, J. L. H., angular distribution of secondary electrons from soot, **1946**
—— with G. Diemer, time delay of secondary emission, (**C**)**1601**
Jordan, R. V., D. W. Shipley and M. Krawitz, focal lengths of unipotential lenses, **825**
Jorgensen, R. A., with others, response of panoramic receiver, **2755**
Jorysz, A., bibliography of magnetic recording 1900–1953, **3119**
Joseph, H. M., with L. S. G. Kovasznay, processing patterns by scanning techniques, **1541**
Josso, É., manufacture of Ni-Fe alloys with oriented structure, **453**
Jouguet, M., propagation in a dielectric line, **964**
Jumau, L., recent patents, on electric batteries, **264**, on accumulators, **2230**
Junge, K., with K. W. Böer, frequency dependence of electrical fluctuation phenomena in semiconductors, **3601**
Junger, M. C., scattering by reinforced cylindrical shells, **925**
Jürgens, B. F., methods of measuring magnetic fields, **477**
Just, R., experimental television equipment at Technische Hochschule, Vienna, **273**; supericonoscope IS 9 mm/10, **2239**
Justi, E., and G. Lautz, intermetallic-compound semiconductors, **1099**
—— and H. Schultz, superconductivity of PbS impurity semiconductors, **1458**

Kaden, H., transmission along metal and dielectric lines, **326**
—— with F. Bath, distortion of television signals, **2515**
Kagan, Yu. M., and V. I. Perel', theory of probe in plasma, **3531**
Kaganov, M. I., with M. Ya. Azbel', anomalous skin-effect in magnetic field, **2624**
Kahan, T., with R. Jancel, magneto-ionic theory of weakly ionized gas, **1030**; propagation of e.m. waves, in inhomogeneous antisotropic plasma, **1166**, in homogeneous plasma, **2196**; plasmas, in constant magnetic field and oscillating electric field, **2364**, Maxwellian approximation to general theory of, **3196**
Kahn, A. H., with others, electronic polarizabilities of ions in crystals, **1394**
Kahn, L. R., analysis of limiter as variable-gain device, **1896**
Kainz, J., h.f. ceramics, **2152**
Kaisel, S. F., and C. B. Clark, luminescent screen for use with very-low-velocity electrons, **2113**
—— with R. E. Shrader, excitation of ZnO phosphors by low-energy electrons, **2114**
Kaiser, H. F., microtrons for X- and K-band operation, **3013**
Kaiser, T. R., radio-echo studies of meteor ionization, **1042**
—— with I. C. Browne, radio echo from head of meteor trails, **712**
Kaiser, W., and H. Y. Fan, infrared absorption, photoconductivity and impurity states in Ge, **2426**
—— R. J. Collins and H. Y. Fan, infrared absorption in *p*-type Ge, **756**, **1082**
Kakinuma, T., with H. Tanaka, interferometer for locating sources of solar noise, **3204**
Kakita, K., with others, microwave fading, **3669**
Kales, M. L., H. N. Chait and N. G. Sakiotis, nonreciprocal microwave component, **2040**

Kalinyak, A. A., and L. G. Fedorovich, effect of electric field on Cu_2O absorption spectrum, **3596**
Kallenbach, W., applications of sound spectrography in acoustics, **3107**
Kallmann, H., with M. Furst, fluorescence of NaCl(AgCl) with high-energy irradiation, **1070**
Kallmann, H. E., optical automatic ranging for the blind, **3641**
Kalra, S. N., force on ring in u.h.f. field, **1140**
Kam Li. See Li, Kam.
Kamel, R., with Y. L. Yousef, vibrating-needle electrometer, **2177**
Kaminsky, L. M., with B. S. Parmet, transients in N.T.S.C. colour system, **543**
Kamiyama, H., ionospheric disturbances, during geomagnetic bay, **409,** during magnetic storm of 18th April 1951, **3555**
Kan, M., with others, simultaneous measurement of ionosphere virtual height and critical frequency, **2937**
Kanai, Y., temperature dependence of surface recombination velocity in Ge, **2978**
Kanavina, N. G., with others, electron-optical method of imaging objects with magnetic inhomogeneities, **2739**
Kandiah, K., decimal counting tubes, **1625;** pulse trigger circuit with stable threshold, **3486;** scaling unit using cold-cathode tubes, **3487**
Kandoian, A. G., and W. Sichak, wide-frequency-range helical aerials, **1304,** (C)**2315**
Kansas, R., surface-barrier transistors, h.f. performance of, **894**
Kante, H., and R. Krug, 16-mm-film scanner for television, **3371**
Känzig, W., and R. Sommerhalder, properties of colloidal ferroelectric materials, **1445**
—— with others, properties of colloidal ferroelectric materials, KH_2PO_4, **776,** $BaTiO_3$, **3244**
Karasev, M. D., and V. A. Apanasenko, surface waves on single cylindrical conductor, **3122**
Karbowiak, A. E., E-H surface wave, **1293;** theory of composite guides for surface waves, **3120**
—— with H. [E.] M. Barlow, properties of corrugated cylindrical surface waveguides, **2301;** characteristics of cylindrical surface waves, **623**
Karger, E., design of h.f. coils for high currents, **2021**
Karmen, K. N., ferroelectricity of Rochelle salt, **2965**
Karnovski, M. I., suppression of fluctuation interference in correlation method of reception, **3344**
Karr, P. R., circuit bandwidth for noise with power-law spectrum, **352**
Karstad, K., with others, test instruments for colour television, **1152**
Kastler, A., magneto-optical phenomena, **2374**
Kästner, S., with K. Altenburg, wave propagation in stratified media, **1371**
Kates, L. W., rhenium metal, **2450**
Kato, S., with others, cores of broad-band transformer insulated by cataphoresis, **3612**
Katz, L., simulating piano tones, **225**
Kaufman, A. B., oscilloscope voltage calibrator, **218**
Kaufman, H., with R. L. Sternberg, two-frequency modulation products, **2212**
Kaufman, I., high-energy bunched-beam analyser, **1519**
Kaufman, W. M., with others, generalized servomechanism evaluation, (**A**)**3031**
Kawazu, S., calculating aerial directivity, **3469**
—— with others, path-length lens antenna, **3471**
Kay, I., diffraction of pulse by wedge, **378**
—— and J. B. Keller, evaluation of field at caustic, **3535**
Kaye, E. J., with others, LEO, **3473**
Kaylor, R. L., selective fading of super-frequency signals, **236**
Kear, F. G., and J. G. Preston, vertical radiation patterns of television aerials, **1303**
Kebbel, W., medical applications of s.w. energy, **3639**
Kebby, M. H., with others, compandors in f.m. radio systems with frequency division multiplexing, **2771**
Keck, P. H., and W. Van Horn, surface tension of Ge and Si, **188**
—— M. Green and M. L. Polk, shapes of floating liquid zones, **1804**
—— and others, crystal growth by tip fusion method, **2708;** recrystallization of Si, **3255**
Keesom, P. H., and N. Pearlman, atomic heat of Ge below 4°K, **1090**
Keilson, J., dielectric relaxation and carrier motion in semiconductors, **753;** diffusion of particles in radial electric field, **1393**
Keiper, F. P., Jr, with J. B. Angell, surface-barrier transistors, circuit applications of, **692**
Keizer, E. O., and M. G. Kroger, synchronizing-signal separator and a.g.c. system, **555**
Kell, R. D., and A. C. Schroeder, optimum use of channel for colour television, **542**
Kelleher, K. S., wide-angle microwave reflector, **335**
Keller, J. B., finite-amplitude sound waves, **294;** produced by piston in tube, **2276**
—— with I. Kay, evaluation of field at caustic, **3535**
Kelliher, M. G., with C. F. Bareford, 15-MeV linear accelerator, **226**
Kelly, L. C., with H. G. Bassett, distributed amplifiers, **1359,** (**D**)**3176**
Kelly, S., piezoelectric crystals, **2411**
Kelso, J. M., coupled wave equations of magneto-ionic theory, **1887;** electron density distribution of ionosphere layer with external magnetic field, **2088;** group height calculations, **3209**
Kemp, G. T., and A. W. Nolle, attenuation of sound in small tubes, **1635**
Kendall, J. T., electronic conduction in grey tin, **2135**
Kennedy, D. P., 50-W f.m. magnetron for relay service, **904**
Kent, G., space-charge waves in inhomogeneous electron beams, **1945**
Keonjian, E., temperature-compensated d.c. transistor amplifier, **1367, 2060**
Kerkhof, F., and W. Werner, Television, (**B**)**573**
Kerner, K., and H. Raether, electron emission from cold metal surfaces, **3193**
Kerney, I., with R. L. Case, programme transmission over Type N carrier telephone, **2768**
Kerr, F. J., J. V. Hindman and B. J. Robinson, observations of 21-cm line from Magellanic clouds, **3544**
Kettel, E., quartz-crystal-controlled frequency meter and master oscillator, **2475**
Keyes, R. W., electrical properties of black P, **1459**
Khaikin, S. E., with S. V. Lebedev, anomalous emission from W heated by pulses, **3528;** conduction of metals heated by pulses, **3574**
Kharanen, V. Ya., propagation of sound in medium with random fluctuations of refractive index, **929**
Khlytchiev, S. M., visual observation of spectra of electrical oscillations, **3305**
Khodakov, A. L., with others, temperature changes of $BaTiO_3$ single crystals, **1116**
Kido, K., with T. Nimura, effects of surrounding device of cone-type loudspeakers, **2293**
Kiely, D. G., fading at 8 mm λ over short sea path, **1554;** rain clutter measurements with c.w. radar systems, **1774**
Kihlberg, G., with S. Ekelöf, thermistor as circuit element, **3481**
Kikoin, I. K., photomagnetic effect in semiconductors in inhomogeneous magnetic field, **3580**
Kikuchi, M., and T. Onishi, "photo-after-effect" of Ge rectifiers, **2794**
Kikuchi, Y., ultrasonic sonar with p.p.i., **3225**
Kilburn, T., and E. R. Laithwaite, servo control of position and size of optical scanning system, **2008**
—— and G. Ord, digital-computer decimal storage system, **980**
—— and others, digital computers at Manchester University, **978**
—— with others, advances in c.r.-tube storage, **985**
Kilvington, T., television service to Belfast, **867**
—— F. J. M. Laver and H. Stanesby, London-Birmingham television-cable system, (**D**)**2781**
Kimpara, A., atmospherics due to fronts in upper atmosphere, **3560**
King, B. G., with others, loss measurements on surface-wave lines, **3121**
King, D. D., and R. L. Konigsberg, electronically tuned wide-range oscillator, **2043**
—— with H. Scharfman, aerial scattering measurements by modulation of scatterer, **2310**
—— with others, mm waves from harmonic generators, **2605**
King, G. W., G. W. Brown and L. N. Ridenour, photographic techniques for information storage, **66**
King, R. A., and S. P. Morgan, formulae for laminated coaxial cables, **3124**
King, W. C., and W. Gordy, 1–2-mm wave spectroscopy, **2079**
Kingston, R. H., water vapour and channel effect in *n-p-n*-junction transistors, **1951;** switching time in junction diodes and transistors, **2539;** point-emitter/junction-collector transistor, **2796**
—— with A. L. McWhorter, channels and excess reverse current in Ge junctions, **3587**
Kip, A. F. with others, cyclotron resonance in Ge crystals, **1468**
Kiral, A., variation of shape of sunspot curves, **717**
Kirby, R. S., and others, effective ground-conductivity measurements in U.S., **2381**
Kirchner, F., and H. Kirchner, field electron emission and gas adsorption, **576**
Kirchner, H., with F. Kirchner, field electron emission and gas adsorption, **576**
Kiriloff, A. A., with H. S. Bennett, magnetron stability tester, **2477**
Kirk, D., with others, line amplifiers for community television systems, **3066**
Kirschstein, F., radar relay, **425**
—— and A. Krug, reproduction of pictures by inexactly tuned television receivers, **3707**
Kirschstein, G., iron-free cylindrical coils with reduced external field, **2020**
Kistemaker, J., and J. Snieder, measurements on gas discharge with axial magnetic field, **1378**
Kittel, C., with others, cyclotron resonance in Ge crystals, **1468**
Klasens, H. A., P. Zalm and F. O. Huysman, Mn emission in ABF_3 compounds, **1785**
—— with A. Bril, efficiency of fluorescence in c.r. tubes, **431**
—— with W. Hoogenstraaten, properties of ZnS activated with Cu and Co, **430**
—— with P. Zalm, 6100-Å band in Zn_2SiO_4-Mn, **1441**
—— with others, determination of decay times of phosphors, **1503;** electroluminescent ZnS phosphors, **2962**
Kleen, W., and K. Pöschl, line attenuation and power gain of travelling-wave valve, **1615**
Kleijnen, P. H. J. A., magnetrons, **1614**
Klein, R. J., automatic beam stabilization for Williams tube memories, **1687**
Klein, S., demodulation of two ultrasonic waves of different frequencies, **1984**
Klein, W., development of filter theories, **1709;** air cooling of transmitters, **2803**
—— and L. J. Libois, testing radio-link transmission, **1577**
Kleinklaus, L. J., audio equipment for binaural broadcasts, **1579**
Kleinwächter, H., transverse Lecher wave in coaxial cable, **622**
Klement, F. D., and I. F. Malysheva, phosphors based on halides of group II metals, **3570**
Klemperer, O., Electron Optics, (**B**)**1976**
Klinger, H. H., microwaves in scientific research, **224;** radio astronomy, **1411,** fundamental results and problems of, **126**
Klinger, Y., conductivity of Ge at $2{\cdot}4 \times 10^{16}$ c/s, **1088**

—— and E. W. Saker, dielectric constant of amorphous Se, **1790**
Klobe, M., input impedance of linear quadripole, **670**
Klotz, E., and G. Schaffstein, post-war development of West German broadcast receivers, **1897**
Kluge, W., and A. Schulz, reversible secondary-emission fatigue effect in glow cathodes comprising a semiconducting layer, **2919**
Klyuchnikov, N. G., asymmetry in conductivity of selenides, **3691**
Knapp, H., with G. Schmid, ultrasonic transmission through porous bodies in liquids, **1641**
Knight, L., valve reliability in digital computers, **984**
Knipp, J. K., and others, ionization of gas by electrons, **703**
Knoll, M., P. Rudnick and H. Hook, viewing storage tube with half-tone display, **1975**
Knöpfel, W., with others, planning u.s.w. broadcasting networks, **532**
Knudsen, H. L., radiation resistance and gain of ring array, **1994**
Ko, H. C., with J. D. Kraus, radio radiation from supergalaxy, **394**
v. Kobierski, H., u.s.w. R/T for mobile services, **527**
Koch, B., control of transmitter frequency by electrodeless discharge, **362**
—— and H. Neuert, magnetic control of oscillator frequency by electrodeless gas discharge, **90**
Koch, G. F., gain, effective area, and gain efficiency of directional aerials, **18**
Koch, R., with others, apparatus for crystal pulling in vacuum, **460**
Kocherzhevski, G. N., corner-reflector slot aerials, **3139**
Koechlin, Y., I. Pelchowitch and A. Rogozinski, photomultiplier background noise, **1958**
Kohane, T., with P. P. Debye, Hall mobility of electrons and holes in Si, **2703**
Kohlenberg, A., exact interpolation of band-limited functions, **1908**
Köhler, A., u.s.w. d.f. aerials, **3465**
Kohn, C. T., design of r.f. coaxial resistor, **2019**
Koidan, W., acoustic method for measurement of vibration amplitudes, **3011**
Kojima, Y., with others, *g* factor of Ni ferrite aluminate, **2985**
Kolb, J., and A. P. Loeber, study of sound field by optical refraction effects, **2288**
Kolin, A., and F. Reiche, e.m. velometry, **2734**
Koller, L. R., with R. E. Halsted, electroluminescence in thin films of ZnS:Mn, **1783**
Kolomilova, V. G., with E. I. Adirovich, carrier formation and relaxation on illumination of semiconductor, **2967**
Kolsky, H., e.m. waves emitted on detonating explosives, **1741**
Komar, A. P., and N. M. Reinov, temperature dependence of magnetization of Ni-Zn ferrites, **1488**
—— N. M. Reinov and S. S. Shalyt, photomagnetic effect in Cu_2O, **3232**
Kompfner, R., and N. T. Williams, backward-wave valves, **586**
—— with others, travelling-wave valves using ferrite attenuators, **3092**
Kondorski, E., and A. Pakhomov, temperature dependence of magnetization of metals and alloys, **3609**
Kondorski, E. I., and N. A. Smol'kov, ferromagnetic resonance of Ni-Zn ferrites, **1832**
König, H., with W. O. Schumann, observation of atmospherics at very low frequencies, **2948**
König, H. W., with R. Wiesner, cathode boundary conditions and noise minima in electron beams, **2271**
Konigsberg, R. L., with D. D. King, electronically tuned wide-range oscillator, **2043**
Kono, Y., with others, microwave fading, **3669**
Konovalenko, B. M., with others, induced conductivity of CdS, **3592**
Konozenko, I. D., physics of thin metal and semiconductor films, **3542**
Korewick, J., a.m. substitution system for microwave attenuation measurements, **803, 1138**
Kornblith, L., Jr, r.f. generator for nuclear energy studies, **2483**
Kornei, O., magnetic transducer heads, **323**
Körner, H., and K. H. Kristkoiz, u.s.w. wide-band aerial, **3464**
Kornhauser, E. T., magnetic damping of acoustic waves, **932**
—— and D. Mintzer, vibration of mass-loaded membranes, **921**
Korolev, N. V., with L. N. Galkin, infrared photoluminescence of PbS, **2691**
Kösel, H. J., with others, photoconductivity of phosphors, **1437,** effect of illumination intensity, etc. on, **1776**
Kossel, W., F. Leonhard and P. Volk, charge-carrier device as high ohmic resistance, **3150**
Koster, G. F., with others, two-electron example of ferromagnetism, **1033**
Kösters, H., acoustics of television studio, **567**
Kostyshyn, B., and P. H. Haas, current-sheet approximations in h.f. magnetic measurements, **3625**
Koton, O., v.h.f. f.m. broadcasting in Austria, **256**
Kotov, A. G., dependence of ferromagnetic resonance on tension, **444**
Kovasznay, L. S. G., and H. M. Joseph, processing patterns by scanning techniques, **1541**
Kozanowski, H. N., vidicon film-reproduction cameras, **2519**
Krainik, N. N., with others, ferroelectric properties of $BaTiO_3$-$PbZrO_3$ solid solutions, **1446**
Krambeer, K. H., and F. Künemund, variable u.s.w. filters, **2339**
Kramer, J., luminescence and exo-electron emission, **2907**
Krasil'nikov, V. A., fluctuations of phase of ultrasonic waves, **1271**
—— and V. I. Tatarski, scattering of sound in turbulent stream, **1270**
Kraus, J. D., and H. C. Ko, radio radiation from supergalaxy, **394**
Kraus, L., determination of distribution of electron density in ionosphere, **(D)1767**
Kraus, M. H., with T. D. Hinkelman, UNIVAC valve programme, **647**
Krause, C. A., gain-stabilized transistor amplifier, **1366**
Krawitz, M., with others, focal lengths of unipotential lenses, **825**
Krcek, J. A., aspects of naval communication systems, **1181**
Kreager, P., with G. F. Schilling, portable quadrant electrometer, **806**
Kretzmer, E. R., amplitude-stabilized transistor oscillator, **1352, (C)2893**
Krishnaji, —, and P. Swarup, absorption of microwaves in gases, **1747;** dispersion in NH_3 in 3-cm region, **1854**
Krishnan, K. S., and S. C. Jain, temperature distribution in heated filament, **2641**
—— with S. C. Jain, temperature along electrically heated thin rod, **2375**
Krisilas, J. G., with R. M. Soria, r.f. power measurements, **810**
Kristkoiz, K. H., with H. Körner, u.s.w. wide-band aerial, **3464**
Kroebel, W., amplification of extremely small voltages, **368**
—— and G. Stutzer, application of multivibrator principle in counter-tube amplifiers, **2051**
Kroger, M. G., with E. O. Keizer, synchronizing-signal separator and a.g.c. system, **555**
Krömer, H., conduction mechanisms in semiconductors, **432;** 'drift' transistor, **1605;** theory of diffusion-type and drift-type transistors, **3389**
Kron, G., interconnecting solutions of physical systems, **202;** solving large physical systems in easy stages, **2164**
Kronenberg, K. J., aging of permanent magnets, **772**
Kronenberg, M. H., and E. S. White, design of colour-television receivers, **1592**
Krongauz, A. N., and V. K. Lyapidevski, negative photoconductivity of cuprite, **2448**
Kronig, R., with C. W. Benthem, anomalous skin effect of metals, **3523**
Kronjäger, W., survey of u.s.w. harbour, coastal and waterways service, **259**
Krook, M., with others, model for collision processes in gases, **2633**
Krug, A., with F. Kirschstein, reproduction of pictures by inexactly tuned television receivers, **3707**
Krug, R., with H. Kante, 16-mm-film scanner for television, **3371**
Krügel, L., determination of nonuniformities in wide-band cables, **2173;** foamed materials for insulation in coaxial cables, **3279**
Krusen, F. H., with J. F. Herrick, ultrasound and medicine, **2285**
Kuder, M. L., broadband low-level error-voltage detector, **3181**
Kuhl, W., and K. Tamm, sound propagation in water-filled pipes, **308**
—— H. Oberst and E. Skudrzyk, pulse measurement of reflection from water-borne sound absorbers, **952**
Kühn, L., theory of diode voltmeter for measurements at pulsed high frequency, **2998**
Kulcke, W., with others, structure of amorphous Se, **1077**
Kümmel, F., amplification of alternating voltages with magnetic amplifier, **3512**
Kümmich, R., long-wave radio relay, **3042**
Kundu, M. R., correlation between variations of surface pressure and ionospheric parameters, **2090**
Künemund, F., with K. H. Krambeer, variable u.s.w. filters, **2339**
Kuno, M., with W. Sasaki, effective mass of conduction electron in Ge, **1461**
Kunz, K. S., propagation of microwaves between parallel doubly curved surfaces, **2864**
Kunz, W., with H. Gobrecht, darkening and luminescence of ZnS, **1438**
Kuo-Chu Ho. See Ho, Kuo-Chu.
Küpfmüller, K., entropy of German language, **3675**
Kurenev, V. Ya., with others, paramagnetic resonance absorption in metals, **186**
Kuritsyna, E. F., magnetic viscosity of Ni-Fe alloys, **181**
—— with R. V. Telesnin, effect of demagnetizing field on magnetic viscosity, **176**
Kurnick, S. W., A. J. Strauss and R. N. Zitter, photoeffects in InSb, **3233**
Kurshan, J., with P. G. Herkart, resistivity and Hall coefficient of Ge, **454**
Kurtze, G., 'one-dimensional' directional microphone, **1982;** improvement of acoustic panels by use of resonators, **2556;** measurement of acoustic parameters of rooms, **3442**
—— with K. Tamm, microphone with high directivity, **3116**
—— with others, anechoic chamber for sound and short e.m. waves, **942**
Kuwabara, G., optical and electrical properties of CdS films, **2706**
Kuwagata, M., E. Otsuka and M. Tomura, resistivity of polycrystalline Se, **2972**

Labin, É., theory of triode electron gun, **1262;** formatron c.r. tube, **3731**
Labus, J., and K. Pöschl, space-charge waves in plasma streams, **2807**
Lachenbruch, S. H., with others, electron-optical shadow method of magnetic-field mapping, **2465**
Lacmann, W., design of transmitter output stages from valve data, **2253**
Lacombe, P., with others, secondary recrystallization textures in soft iron, **447**
Ladd, J. H., with others, brightness modification proposals for televising colour film, **1211**
Laemmel, A. E., application of linear graphs to communication problems, **(A)3031**
Laffineur, M., with others, solar radio-noise storms, **1043**
Lafleur, C., fundamentals of information theory, **1567**
Lagarde, M., R. Blondé and R. Derosier, compressor-expander system of French Post Office, **1725**
Lagasse, J., J. Favarel and P. Sido, steep-fronted-wave generators, **1004**
—— with others, multibeam c.r.o., **1624**
Lagerholm, G., with S. Edsman, review of AB Svenska Elektronrör valves, **3718**
Laithwaite, E. R., with T. Kilburn, servo control of position and size of optical scanning system, **2008**
Lallemant, C., prospecting for uranium, **827**

Lambert, R. F., factors influencing damping of acoustic resonator, **1643**
Lamoral, R., polycylindrical systems and diffusion of sound, **2557**
—— and R. Trembasky, investigation of acoustics using models, **616**
—— with J. Pujolle, sound insulation with light-weight structures, **2842**
Lampard, D. G., distortion in power-law devices, **650;** minimum detectable change in mean noise-input power, **2208;** generalization of Wiener-Khintchine theorem to nonstationary processes, **3286**
Lamy, M., with others, waveguide switching device using gas-filled tubes, **2870**
Lancoud, C., manufacture, laying and splicing of coaxial cable, **1292**
Landauer, R., bound states in dislocations, **3250**
—— and J. Swanson, diffusion currents in semiconductor Hall effect, **165**
Landecker, K., properties of equiangular spirals and problems of wave propagation, **1667**
—— and B. J. Robinson, study of h.f. fluctuations from light sources using photocells, **697**
Lander, J. J., Auger peaks in energy spectra of secondary electrons, **1386**
Landmark, B., with L. Harang, 35- and 74-Mc/s echoes during aurorae and geomagnetic storms, **1771**
Landsberg, P. T., semiconductor statistics, **161**
Lane, A. L., $BaTiO_3$ admittance/temperature characteristics, **938**
Lange, E., with J. Giner, electron emission voltages of Au, Pt and Pd, **1385**
Lange, R. W., 40–4000-μW meter, **2731**
de Lange Dzn, H., critical flicker frequency and low-frequency characteristics of eye, **3381**
Lange-Hesse, G., geomagnetic disturbances and F_2 critical frequencies, **2942**
Langer, K., with K. Heinemann, Hamburg-Lokstedt television building, **564**
Langevin, A., with J. Creusot, definition of ferromagnetic state with maximum stability, **1102**
Langevin, R. A., electroacoustic sensitivity of cylindrical ceramic tubes, **2830**
Langford, D. A., with R. G. Martindale, preparation of large single crystals of Si-Fe, **182**
Langleben, M. P., with others, radar evidence of generating level for snow, **2405**
Langner, G., and F. Lenz, measuring magnetic fields of electron-microscope lenses, **3658**
Lanusse, P., with G. Vidal, effects of tension and compression on magnetic characteristics of mild steel, **446, 1106**
Lapin, S. P., electromechanical filters, **1339**
Laplume, J., fused-junction transistors, surface recombination rate in, **1953,** current gain of, **1954**
Laport, E. A., radiation pattern synthesis, **1683**
Lappe, F., irreversible changes in electron mobility in thin CdO films, **2969**
Larach, S., with others, poisoning mechanism in ZnS:Mn phosphors, **1782**
Larenz, R. W., double refraction in atmosphere, **1549**
Lark-Horovitz, K., with V. A. Johnson, thermoelectric power in semiconductors, **1092**
La Rosa, R., with H. J. Carlin, synthesis of reactance quadripoles, **993**
Larson, R. E., S-band sweep generator, **486**
Lashinsky, H., with others, Cherenkov effect at microwave λ, **1392**
Lashkarev, V. E., and others, photoresistivity of CdS single crystals, **1118**
Lassen, H., with G. Grawert, evaluation of ionospheric observations, **2664**
Lauckner, H., dynamic phenomena in Se rectifiers, **778**
Laudet, M., numerical integrations of equation of electron trajectories, **1535**
Lauer, H., with K. H. Baer, transmission-quality tests on modern m.f. transmitters, **1944**
Laughlin, R. G., with J. L. McLucas, moving-target detector, **3382**
Laurent, T., design of zig-zag filters, **83**
Lauter, E. A., D-layer attenuation at 245 kc/s, **1415**
Lauterjung, K. H., starting potential of counter tubes, **502**
Lautz, G., differential thermoelectric power of semiconductors, **2119**
—— with E. Justi, intermetallic-compound semiconductors, **1099**
Laver, F. J. M., with others, London-Birmingham television-cable system, **(D)2781**
Law, J. T., water-induced excess reverse current in Ge n-p junctions, **3586**
Lawrance, R., drift mobility of injected holes in Ge, **2130**
Lawrence, T. E., with others, equivalent-network representations for delay lines, **989**
Lawson, J. D., electron trajectories in strip beams constrained by magnetic field, **3078**
Lax, B., and others, directional properties of cyclotron resonance in Ge, **2423**
Lax, M., with others, optical investigations of impurity levels in Si, **2422**
Leadabrand, R. L., with A. M. Peterson, long-range radio echoes from aurora, **3223**
Lebedev, N. N., with others, field problem for parabolic reflector, **2867**
Lebedev, S. V., and S. E. Khaikin, anomalous emission from W heated by pulses, **3528;** conduction of metals heated by pulses, **3574**
Lebedinsky, M., with others, standardized equipment Type 51L, **1909**
Le Blan, L., multiplex signal with pulses of alternate sign, **1176;** sine wave with double amplitude modulation, **1561**
Leblond, A., interdigital line for u.h.f. magnetron, **289**
—— and G. Mourier, lines with bar structure for u.h.f. valves, **3087**
Lebow, I. L., and R. H. Baker, transient response of transistor switching circuits, **2592**
—— with others, phase-bistable transistor circuit, **(C)659;** transistors convert sine waves to pulses, **2344;** transistor shift registers, **2869**
Leck, J. H., sorption of gas in cold-cathode ionization gauge, **427**
LeClaire, A. D., effects of temperature gradients on diffusion in crystals, **(D)1837**
Le Croissette, D. H., with J. Yarwood, d.c. amplifiers, **1357**
Leder, L. B., with L. Marton, energy loss of electrons in passage through thin films, **2352**
Ledinegg, E., and P. Urban, free vibrations of isotropic elastic media, **922;** magnetic behaviour of linear atomic chain, **1389;** permeabilities of ferromagnetic metals at cm λ, **1505;** determination of elastic constants using ultrasonic waves, **1522;** equivalence theorem for coupled e.m. cavity-resonator system, **1700**
Lee, E. W., influence of domain structure on magnetization curves for single crystals, **117;** approach to saturation magnetostriction, **2988**
Lee, L. K., and C. Brunetti, automatic assembly of electronic equipment, **694**
—— with R. F. Newton, mechanized assembly of television receivers, **556**
Lee, N., with J. Ewles, large activator centres in crystal phosphors, **749**
Lee, P. A., 'phosphorescent' effect in PbSe, **777**
Lee, R., false echoes in radar pulsers, **3228**
Lee, T. D., and D. Pines, interaction of particle with scalar field, **1395**
Lees, J., Cu_2O-rectifier characteristics, **462**
Lefker, R., with A. E. Bills, shadowing technique for electron microscopy, **3653**
Le Gall, J., B. Mongin and H. Munier, ionosphere observations at the Kerguelen Islands, **406**
Legler, E., scanning film negatives for television, **1934**
Legrand, J. P., with others, G-M counters with mixtures of rare gas and organic vapour, **1540**
Lehmann, G. J., and C. A. Meuleau, temperature regulator for Ge metallurgy, **1788, 2409**
Lehmann, R., with P. Chavasse, acoustic testing of loudspeakers, **8;** international congress on acoustics, **919**
Lehnert, B., magnetohydrodynamic waves in liquid Na, **2926**
Lehovec, K., energy of trapped electrons in ionic solids, **1112**
—— and E. Belmont, preparation of p-n junctions by surface melting, **1807**
—— and J. Broder, semiconductors as solid electrolytes, **3048**
—— and others, apparatus for crystal pulling in vacuum, **460**
Leidier, C. H., height indicator, **1775**
Leiner, A. L., and S. N. Alexander, system organization of DYSEAC, **2320**
Leingang, H., measuring equipment for u.s.w. interference, **478**
Leinhardt, T. E., with others, resistance of graphite at low temperatures, **1078**
Leisegang, S., stigmator for magnetic electron lenses, **2489**
Leite, R. J., with R. M. Howe, low-frequency oscillator, **1321**
Lempicki, A., electron-multiplier valve, **594**
—— and C. Wood, breakdown in Ge diodes, **3070**
Lenaerts, E. H., with others, LEO, **3473**
Lenehan, J. J., microwave system for trunk service, **2771**
Leng, L., rhombic aerials for transmitting stations, **2570**
Lennartz, H., design of heterodyne oscillators, **1003;** ferrites, **1487;** characteristic-curve tracer for transistors, **2180**
Lenouvel, F., and J. Daguillon, fatigue in electron-multiplier photocell, **3077**
Lenz, F., with G. Langner, measuring magnetic fields of electron-microscope lenses, **3658**
—— with others, measurement of caustic surfaces of electron lenses, **823**
Leonard, R. W., with O. B. Wilson, Jr, measurements of sound absorption in aqueous solutions, **2286**
Leondes, C. T., with others, design of or-and-or pyramids, **40**
Leonhard, F., with others, charge-carrier device as high ohmic resistance, **3150**
Lepri, F., with others, time-discriminating pulse selector, **1007**
Lescroël, Y., ferromagnetic ferrites, **1827**
Lesemann, K. J., with A. Walther, machine processing of equation for spark gap, **699**
Lesk, I. A., with R. W. Aldrich, double-base diode semiconductor thyratron analogue, **2535**
Lestel, J. H., with others, two u.h.f. radiometers, **716**
Letaw, H., Jr, and J. Bardeen, electrolytic analogue transistor, **3073**
—— L. M. Slifkin and W. M. Portnoy, self-diffusion in Ge, **2128**
Lev, A. Yu., with L. I. Yaroslavski, frequency spectra of tone telegraphy systems, **3354**
Levell, D. A., secondary surveillance radar, **2099**
Leveridge, L. E., with others, electron-beam head for magnetic-tape playback, **11**
Levin, M. L., passive radiating systems in waveguides, **1684;** thermodynamical consideration of equilibrium electrical fluctuations, **2877**
—— with A. V. Gaponov, theory of thin aerials in endovibrators, **2863**
Levin, S. B., with others, crystal growth by tip fusion method, **2708**
Levine, A. K., with S. Levy, phosphor screens for colour-television tubes, **2248**
Levine, D., information cells on c.r.-tube screens, **743, (C)2408;** aerial scan considerations, **2682**
LeVine, D. J., and W. Sichak, dual-mode horn feed for microwave multiplexing, **3467**
Levine, H., theory of sound reflection in tube, **2279**
Levinstein, H., with D. E. Bode, photoconductivity of InSe, **1777**

—— with R. Broudy, h.f. resistance, of thin films, **2696**, of photoconducting films, **2697**
—— with S. J. Silverman, electrical properties of single crystals and thin films of PbSe and PbTe, **2982**
Levinthal, J. G., with T. J. Higgins, stability limits for third-order servomechanisms, **1188**
Levonian, P. V., with others, analogue-to-digital converter, **47**
Levy, J. L., Hall measurements on NaCl and PbTe, **1111**
Levy, S., and A. K. Levine, phosphor screens for colour-television tubes, **2248**
Lewis, I. A. D., transmission-line-type valve, **902**
—— with J. Dain, adiabatic theory of electron gun for crossed-field devices, **3727**
Lewis, J. A., with W. W. Rigrod, wave propagation along magnetically focused beam, **1964**
Lewis, J. B., improving transient response of servomechanism, **1186**
Lewis, N. W., waveform responses of television links, **3365**
Lewis, P. M., II, with F. M. Reza, transfer voltage ratio of *RLC* networks, **3490**
Lewis, R. P. W., and D. H. McIntosh, universal time component in geomagnetic disturbance, **721**; geomagnetic and ionospheric relations, **730**; statistical analysis of geophysical time series, **1048**
Lewis, T. J., work function of irregular metal surfaces, **2631**
Lewis, W. D., electronic computers and telephone switching, **64**
Leyton, E. McP., E. A. Nind and W. S. Percival, low-level-modulation vision transmitters, **274**, (D)**2518**
Li, Kam, with H. P. Schwan, capacitance and conductivity of body tissues at u.h.f., **813**
Libaw, W. H., and L. J. Craig, photoelectric shaft digitizer, **812**
Libois, L. J., distortion of f.m. wave in mismatched quadripole, **3164**
—— with W. Klein, testing radio-link transmission, **1577**
Libowitz, G., with others, oxygen vacancies in BaO, **1114**
Liddy, D. T., with others, measurements of winds in upper atmosphere, **1424**
Lidiard, A. B., antiferromagnetism, **2920**
Lieb, A., measurement of voltage with beam valve, **798**
Lieberman, R., with others, crystal growth by tip fusion method, **2708**
Liebmann, G., electrical analogues and analogue computers, **55**
—— and R. Bailey, iteration method for resistance-network analogues, **2011**
Lien, J. R., and others, bifurcation of the E region, **1054**
Liénard, P., graphical presentation of oscillator resonance, **1018**
Lihl, F., coercive force of Co-Fe-powder magnets, **786**
Likhachev, M., and R. Shtromberg, large television screen, **3373**
Limann, O., German broadcast receivers from 1945 to 1953, **514**
Limburg, W., with others, velocity of sound down to liquid-He temperature, **3439**
Lindberg, L., with J. Björkman, development of trochotrons, **3079**
Linde, J. O., effect of cold work on resistivity of alloys, **2118**
Linden, E. G., with G. G. Wiseman, electrets, **1443**
Linder, E. G., with P. Rappaport, radioactive charging effects with dielectric, **859**
Lindner, P., television picture, **540**
Lindquist, R., interpretation of *h't* recordings on 150 kc/s, **724**
Lindsay, P. A., normalized impedance and reflection coefficient, **963**
Link, W. T., with others, acceleration of heavy ions in fixed-frequency cyclotron, **3322**
Linnebach, A., aerial diplexer and s.s.b. filter, **562**
Linsford, D. B., with others, bifurcation of the E region, **1054**
Linvill, J. G., *RC* active filters, **1711**
Linz, A., Jr, electrical properties of $SrTiO_3$, **196**
Linz, G. D., with C. H. Chandler, wide-band amplifiers using secondary-emission valves, **367**
Lippert, W., and W. Pohlit, properties of e.s. lenses, **1158**, **3651**
Lippert, W. K. R., measuring discontinuity effects in ducts, **2277**; sound measurements at right-angled bends in rectangular tubes, **2278**
Lipson, H. G., with others, infrared photoconductivity due to neutral impurities in Ge, **1808**
Lisichkin, D. A., with M. E. Zhabotinski, quartz generators with negative feedback and inertial nonlinearity, **2889**
List, B. H., and T. B. Jones, r.f. oscillations in d.c. carbon arc, **389**
Litting, C. N. W., with others, advances in c.r.-tube storage, **985**
Little, A. G., with B. Y. Mills, high-resolution aerial system, **633**
Little, P. F., and A. von Engel, hollow-cathode effect and glow discharges, **3526**
Livingston, D. C., N.T.S.C. system, colorimetric analysis of, **1201**, reproduction of luminance detail by, **1209**, synchronous demodulator in, **1223**
Livingston, R. S., acceleration of partially stripped heavy ions, **1871**
—— and R. J. Jones, ion source for cyclotrons, **3644**
Lo, Y. T., cylindrical aerial of noncircular cross-section, **969**; e.m. field of dipole source above dielectric slab, **3201**
Löb, E., pressure effects of ion currents in air, **2365**
Locher, F., coaxial-cable multichannel systems, **1571**
Loeb, J., probability of events in telecommunication and measurement technique, **2214**; two types of error due to noise, **2215**
Loeb, L. B., some aspects of breakdown streamers, **2627**
Loeber, A. P., with J. Kolb, study of sound field by optical refraction effects, **2288**
Loferski, J. J., infrared optical properties of Te single crystals, **2122**
—— with P. A. Hartig, infrared refractive index of Te crystals, **2121**
Löfgren, L. E., partial drift compensation in d.c. analogue computers, **2002**
Logan, M. A., dynamic measurements on e.m. devices, **1141**
Logan, R. A., thermally induced acceptors in single-crystal Ge, **170**
Lombardi, P., Galileo Ferraris National Electrotechnical Institute, **1630**
Long, E. J. P., l.f. response of servomechanism components, **1850**
Long, R. A. K., effect of humidity variation on proximity switch, **1526**
Longini, R. L., with J. P. McKelvey, recombination rates for injected carriers in Ge, **2977**
Lonsdale, K., with B. W. Pollard, Manchester University computer, **979**
van Loon, C. J., with J. Haantjes, large-screen television projector, **275**
Looney, D. H., and S. C. Brown, excitation of plasma oscillations, **2371**
Lopukhin, V. M., with E. I. Vasil'ev, noise in travelling-wave valves, **3722**
Lord, A. V., conversion from 819-line to 405-line television standard, **272**
Lord, H. W., influence of magnetic amplifier circuitry on hysteresis loops, **2613**
Lord, M. P., eye movements in television viewing, **1235**
Lorrin, J., v.h.f. tests on coaxial cables, **1137**
Loughhead, R. E., equations for problem in Bailey's theory of sunspot noise, **1401**
—— with J. W. Dungey, twisted magnetic fields in conducting fluids, **2636**
Loughlin, B. D., processing of N.T.S.C. colour signal for one-gun sequential displays, **1225**
Loughren, A. V., psychophysical and electrical foundations of colour television, **1199**
Lovell, L. C., with others, recombination at lineage boundaries in Ge, **3259**
Lovelock, R. T., point-contact Ge rectifiers, **578**
Lovett, C. M., measurements of coating properties in oxide-coated cathode, **3408**
Low, G. G. E., experiments on semiconducting powders, **3252**
Low, H., with R. R. Bennett, step-switch converter digitizes analogue data, **339**
Lowe, J. R., A.D.E. photoelectric integrator, **3149**
Lucas, I., effective permeability of spherical ferromagnetic particles, **1821**; plane aerodynamic waves in plane ionosphere, **2391**; dynamo theory of geomagnetic tides, **2392**; magnetic-dispersion spectrum of Ni-Zn ferrite, **2710**
—— and A. Schlüter, plasma theory of ionosphere, **2085**
Lucas, R., and E. Grossetti, mechanical action of ultrasonic waves on obstacles, **1273**
Ludbrook, L. C., step- to frequency-response transforms for servo systems, **1921**
Ludwig, E. H., theory of positive column, **1381**
Lueg, H., transformation properties of loss-free quadripoles, **992**; generalization of Weissfloch's transformation law, **2336**
Lukaszewicz, L., analyser of algebraic polynomials, **2582**
Luke, Y. L., computation of oscillatory integrals, **2995**
Lundquist, S., orbit stability in strong-focusing synchrotron, **819**
Lusher, G. V. G., with F. A. Benson, voltage stabilizers for microwave oscillators, **1925**
—— with others, variations of triode characteristics with heater voltage, **598**
Luteijn, A. I., with others, preparation of metals and alloys, **1493**
Luther, A. C., Jr, methods of verifying adherence to N.T.S.C. specifications, **1150**
Lutz, A., and G. Poklekowski, voltage transformer for current measurement, **2471**
Lyapidevski, V. K., with A. N. Krongauz, negative photoconductivity of cuprite, **2448**
Lyman, R. C., with others, generalized servomechanism evaluation, (A)**3031**
Lynch, F. J., and C. L. Wesenberg, instrument for measurement of very high resistance, **2729**
Lynch, G., standard noise generator, **1521**
Lynch, R. T., with others, moulded thermionic cathodes, **1255**
Lyon, R. H., with U. Ingard, resistance-loaded Helmholtz resonator, **941**
Lyons, W., frequency-shift-keyed circuits, **3037**
Lysanov, Yu. P., scattering of e.m. waves, **380**
Lyubarski, G. Ya., and L. E. Pargamanik, statistical theory of magnetron, **287**

van der Maas, G. J., simplified calculation for Dolph-Tchebycheff arrays, **634**, **1681**
MacAdam, D. L., reproduction of colours in outdoor scenes, **1204**
Macalpine, W. W., transmission-line impedance and efficiency, (A)**1294**
MacDonald, A. D., with others, velocity of sound in glycerol, **1647**
MacDonald, A. L., J. Soled and C. A. Stearns, 4-probe instrument for resistivity measurements, **807**
—— with others, apparatus for crystal pulling in vacuum, **460**; recrystallization of Si, **3255**
MacDonald, D. K. C., Brownian movement of linear and nonlinear systems, **2027**; information theory and knowledge, **3032**
—— and W. B. Pearson, anomalous electron scattering in metals, **3190**
—— and S. K. Roy, thermoelectric power of monovalent metals, **1479**
—— with I. M. Templeton, conductivity and noise of carbon resistors, **343**
MacDonald, J. R., theory of a.c. space-charge polarization effects, **1024**
Macdonald, J. R., a.c. cathode-follower circuit of very high input impedance, **2053**
Macek, O., measurements on television receivers, **2479**, **3376**, **3634**
Macfadyen, K. A., Small Transformers and Inductors, (B)**3184**
MacFarland, C. E., with others, concentration of cyclotron beam of strong-focusing lenses, **3320**
Machlup, S., noise in semiconductors, **2438**

Mackay, R. S., oscillations sustained by nonlinear reactances, **686**; switching in bistable circuits, **2590**
—— and H. D. Morris, transient response of glow discharges, **2828**
Mackenzie, R. B., d.c. voltage stabilizing circuit, **2228**
MacNair, D., R. T. Lynch and N. B. Hannay, moulded thermionic cathodes, **1255**
Macneal, R. H., asymmetrical finite-difference network, **1331**
Macnee, A. B., with others, response of panoramic receiver, **2755**
Macovski, A., minimum-signal detector for television receiver, **554**
—— with B. Harris, symmetrical-transistor phase detector for horizontal synchronization, **2525**
Maczuk, J., with H. W. Henkels, anisotropic resistivities of Se crystals, **1076**; properties of microcrystalline Se, **1801**
Madelung, O., magnetic effects in high-mobility semiconductors, **3579**
—— with O. G. Folberth, conductivity measurements on InSb, **3269**
—— with R. Gremmelmaier, preparation of single crystals of semiconductor compounds, **2138**
Mader, H. J., temperature dependence of gas-filled G-M counters, **2741**
Madey, R., and G. Farly, electronic voltage integrator, **2610**
—— K. C. Bandtel and W. J. Frank, r.f. structure of photon beam from synchrotron, **3645**
Maeda, H., vertical distribution of conductivity in upper atmosphere, **3210**
Maeda, K., distribution and variation of F_2 layer, **2670**
Maeda, S., with others, automatically recording magnetic balance, **2723**
van der Maesen, F., and J. A. Brenkman, solubility and diffusion of Ni in Ge, **3589**
—— P. Penning and A. van Wieringen, thermal conversion of Ge, **435**
Maginnis, W. P., and H. Place, microwave system of Michigan-Wisconsin Pipeline Company, **2771**
Maginniss, F. J., with P. A. Abetti, coils, natural frequencies of, (**A**)**655**, fundamental oscillations of, **3483**
de Magondeaux, L., and R. de Magondeaux, passive radar responder, **744**
de Magondeaux, R., with L. de Magondeaux, passive radar responder, **744**
Mahanti, P. C., with S. S. Mandal, d.c. resistivity of Indian mica, **2453**
Mahlow, G., television link between Germany and Switzerland, **3694**
Maidens, A. L., synchronizing observations of 'sferics' network, **1064**
Maier, W., with G. Busch, pulse apparatus for ultrasonic measurements in liquids, **3108**
Maine, A. E., high-speed magnetic amplifiers, **2614**
Maita, J. P., with F. J. Morin, conductivity and Hall effect in intrinsic range of Ge, **3257**
—— with M. Tanenbaum, Hall effect and conductivity of InSb single crystals, **758**
Makinson, R. E. B., and D. M. Slade, dipole resonant modes of ionized gas column, **3532**
Malé, D., stabilization of tetrode electrometer valve, **3006**
Malézieux, J., R. Sueur and M. Lebedinsky, standardized equipment Type 51L, **1909**
Mallinckrodt, A. J., and T. E. Sollenberger, optimum pulse-time determination, **3031**
Malsch, F., tuning-indicator valves, **899**
Malsch, J., equivalent circuits of transistors, **3074**
Malthaner, W. A., and H. E. Vaughan, automatic telephone system with magnetic-drum storage, **65**
Malysheva, I. F., with F. D. Klement, phosphors based on halides of group II metals, **3570**
Manaev, E. I., simultaneous detection of signal and interference, **3343**
Mandal, S. S., and P. C. Mahanti, d.c. resistivity of Indian mica, **2453**
Mandelbrot, B., simple games of strategy occurring in communication, **3031**
Mandl, G., geometrical optics and Maxwell's theory, **1019**
Mange, P., with M. Nicolet, dissociation of O_2 in high atmosphere, **2389**
Manley, J. H., and M. J. Jakobson, cyclotron beam energy determination, **3321**
Mann, P. A., summation of Fourier Series by Laplace transformation, **199**
Manners, M., glass in the electronics industry, **789**
Manning, F. A., with L. Hartshorn, behaviour of standard cells generating appreciable current, **3359**
Manning, L. A., meteoric echoes from dense columns, **1398**; ionospheric winds, **2091**
—— A. M. Peterson and O. G. Villard, Jr, ionosphere wind analysis by meteoric echo techniques, **2393**
—— O. G. Villard, Jr, and A. M. Peterson, length of meteor trails, **124**
—— with V. R. Eshleman, radio communication by scattering from meteor ionization, **1884**
Mansfeld, W., noise factor of amplifiers, **1008**; equipment of Berlin-Leipzig television link, **3693**
Mansfield, R., electrical conductivity and thermoelectric power of sintered MgO, **172**
Many, A., measurements of minority-carrier lifetime in transistor materials, **2129**
—— with others, isothermal Hall effect in semiconductors, **433**
Mapleton, R. A., with others, equivalent-network representations for delay lines, **989**
Marais, A., diffusion after-effect in weak alternating fields, **2637**
Marcon, A., with G. Raoult, elliptically-polarized-vibration analyser for circular waveguide, **1500**
Marcou, P., noise and R/T with a.m., **1173**; intermodulation in pulse communication systems, **3353**
Marcou, R. J., with others, bifurcation of the E region, **1054**
Mariani, F., electron density in upper atmosphere, **2086**
Marique, J., action of periodic telegraphy signals on cascaded *RLC* circuits, **2034**
Mark, M., torque requirements of radar aerial, **2573**
Marko, H., interference in nonidealized f.m. receivers, **2502**
Markowitz, R. S., transistorized radar scope display unit, **151**
Marmor, S., superregenerative receivers for pulsed radar reception, **2097**
Marsh, D. R., with others, New Jersey turnpike highway communication system, **2769**
Marsh, E. C. J., minimizing contact potential in apparatus design, **2348**
Marshall, J. S., and W. Hitschfeld, fluctuating echo from randomly distributed scatterers, **741**
—— with W. Hitschfeld, choice of λ for radar weather detection, **2951**
Marshman, R. C., standby generating plant for Manchester-Edinburgh television relay stations, **263**
Martin, D. H., domain processes in SiFe single crystals, **451**
Martin, E. E., with others, field-emission-initiated vacuum arc, **1025**; space-charge effects in field emission, **1027**
Martin, G. E., equivalent-circuit constants of low-Q piezoelectric resonators, **2829**
Martin, H., phase-correction networks for television, **1196**
Martin, J. E., and J. Ruze, cosecant aerial aids u.h.f. television coverage, **2566**
Martin, K. E., direct-drive line-timebase circuit, **277**
—— with E. Jones, direct-drive scanning circuit, **2523**
Martin, L. H., with D. E. Caro, velocity of sound in air at low pressure, **615**
Martindale, R. G., and D. A. Langford, preparation of large single crystals of Si-Fe, **182**
Marton, L., Advances in Electronics, Vol. IV, (**B**)**3104**
—— and L. B. Leder, energy loss of electrons in passage through thin films, **2352**
—— J. A. Simpson and S. H. Lachenbruch, electron-optical shadow method of magnetic-field mapping, **2465**
Martyn, D. F., electric currents in ionosphere, **1419**
—— with W. G. Baker, electric currents in ionosphere, **1417**
Marx, I., recurrence relations for prolate spheroidal wave functions, **2157**
Marx, J. W., with others, Ge under ultrasonic stress, **1094**, **1095**
Marzullo, S., with others, piezoelectric properties of $PbZrO_3$-$PbTiO_3$ solid solutions, **3247**
Maslakovets, Yu. P., with others, mobility of charge carriers in semiconductors, **163**
Maslen, V., with S. E. Williams, spectrum intensities and r.f. noise in d.c. H arc, **2070**
Mason, B. J., generation of electricity in thunderstorms, **2094**
Mason, W. P., and H. Jaffe, methods for measuring coefficients of crystals and ceramics, **2720**
—— with W. Shockley, dissected amplifiers using negative resistance, **2901**
Massey, H. S. W., and E. H. S. Burhop, Electronic and Ionic Impact Phenomena, (**B**)**711**
Masucci, C., J. J. Insalaco and R. Zitta, laboratory receiver for study of N.T.S.C. system, **1229**
—— J. R. Peltz and W. B. Whalley, signal overload relay for television receivers, **2243**
Masuzawa, K., with others, capacitor microphone Type MR-103, **3444**
Mather, E. L., with others, termination for 0·375-in. coaxial cable, **2178**
Mathias, R. A., with L. A. Finzi, magnetic amplifier performs analytical operations, (**A**)**1723**
Matossi, F., interpretation of electroluminescence effects in excited phosphor, **3238**
Matsuo, S., and others, microwave fading, **3669**
Matsushita, S., lunar tidal variations in E_s region, **408**; studies on ionospheric storm, **2936**; ionospheric variations associated with geomagnetic disturbances, **3554**
Matthaei, G. L., conformal mappings for filter synthesis, **357**, (**C**)**3167**; techniques for network synthesis, **2872**
Matthei, W., with others, Si point-contact transistors, forming, **1246**, enhanced α in, **1607**
Matthes, H., smoothing of loss attenuation in ladder filters, **2036**
Matthews, W. D., with F. W. Chapman, a.f. spectrum of atmospherics, **419**
Mattig, W., magnetic field strength in sunspots, **1402**
Matz, S., transient phenomena in a ferrite, **3605**
Mauchly, J. W., with G. M. Hopper, programming techniques and computer design, **26**
Maulois, J., interaction of ultrasonic waves in air, **958**
Maurice, D., impulse noise in a.m. and f.m. systems, **2762**
Mawardi, O. K., physical approach to loudspeaker problem, **1660**
Maxwell, A., and M. Dagg, drift movements in upper atmosphere, **3557**
Maxwell, L. R., and S. J. Pickart, magnetization in Ni ferrite-aluminates and -gallates, **1830**
May, E. G., with H. F. Olson, electronic sound absorber, **1654**
May, J., with others, vacuum-tube detector using large transit angles, **3096**
May, J. E., Jr, ultrasonic delay lines, **2905**
Mayaud, P. N., south magnetic pole in 1952, **399**; recording the geomagnetic field at Port Martin, **400**
Mayburg, S., and L. Rotondi, thermal acceptors in vacuum-heat-treated Ge, **755**
Mayer, A., and E. Vogt, magnetic measurements on iron amalgam, **449**
Mayer, C. G., colour television broadcasting in the U.S.A., **3367**
Mayer, G., modulation of resistivity of Ge, **164**
Mayer, I. S., miniature-relay design, **347**
Mayer, N., audibility of linear distortions of natural sounds, **1979**; mechanical transients in electrodynamic loudspeakers, **3117**
Maynard, J. E., and R. L. Brock, kerosene-cooled transistors, **71**
Mayo, G., with F. A. Benson, impedance/frequency variations of glow-discharge voltage-regulator tubes, **3101**; temperature variations of glow-discharge tube characteristics, **3422**

Mayot, M., with É. Argence, determination of true height of ionosphere layers, **1765**
Maysmor, C. W. K., with W. W. H. Clarke, precision waveguide attenuator, **3008**
Mazenko, J. J., with F. A. Schwertz, nonlinear semiconductor resistors, **173**
Mazur, P., and B. R. A. Nijboer, statistical mechanics of matter in e.m. field, **1390**
McAfee, K. B., with K. G. McKay, electron multiplication in Si and Ge, **1079**
McAninch, O. G., thermocouple ammeters for v.h.f., **3302**
McAuslan, J. H. L., and K. J. Brimley, polycathode counter-tube applications, **350**
McClane, C. T., adjustment procedures for colour-television production, **3377**
McCombie, C. W., fluctuation theory in physical measurements, **472**
McCool, W. A., a.m.-f.m. electronic analogue multiplier, **63**
McCormick, N. R., and J. D. Craggs, measurements of relative dielectric strength of gases, **3191**
McCoy, R. E., f.m. transient response of band-pass circuits, **1714**
McCubbin, T. K., Jr, dispersion of velocity of sound in water, **2289**
McDermott, J. R., electronic drafting tools and techniques, **3428**
McGee, R. X., and J. G. Bolton, probable observation of the galactic nucleus, **2932**
McGhee, H. A., television pickup devices, **548**
McGregor, M. C., simple three-terminal micrometer capacitor, **3155**
McGuigan, J. H., combined reading and writing on magnetic drum, **43**
McGuire, T.R., microwave resonance absorption in Ni ferrite-aluminate, **2145**
McGuire, W. S., and A. G. Bird, radio bearer equipment for carrier telephone systems, **1574, 2218**
McIlwain, K., with others, N.T.S.C. colour television field test, **1199**
McIntosh, D. H., with R. P. W. Lewis, universal time component in geomagnetic disturbance, **721**; geomagnetic and ionospheric relations, **730**; statistical analysis of geophysical time series, **1048**
McKay, K. G., avalanche breakdown in Si, **2973**
—— and K. B. McAfee, electron multiplication in Si and Ge, **1079**
—— with J. B. Johnson, secondary emission, of crystalline MgO, **114**, from Ge, **2132**
McKelvey, J. P., and R. L. Longini, recombination rates for injected carriers in Ge, **2977**
McKinley, D. W. R., meteor-echo duration, **1399**; radar determination of heights and radiants of meteor showers, **2930**
McLachlan, K. R., spectrum analyser for 100 c/s–100 kc/s, **2474**
McLay, A. B., with S. T. Wiles, diffraction of 3·2-cm waves by cylinders, **3538**
McLean, F. C., colour-television broadcasting, **1590**
McLeish, C. W., and D. H. Rumble, stroboscopic frequency meter, **1863**
McLucas, J. L., and R. D. Laughlin, moving-target detector, **3382**
McMahon, M. E., with R. G. Shulman, recovery currents in Ge *p-n*-junction diodes, **1238**
McMahon, R. E., I. L. Lebow and R. H. Baker, transistors convert sine waves to pulses, **2344**
—— with others, transistor shift registers, **2869**
McMorrow, D. R., with others, bifurcation of the E region, **1054**
McNamara, A. G., and B. W. Currie, radio echoes during aurora, **3222**
—— with J. H. Meek, magnetic disturbances, sporadic E and radio echoes associated with aurora, **3221**
McNarry, L. R., with P. A. Redhead, ionization manometer for extremely low pressures, **2955**
McQuarrie, M., time effects in $BaTiO_3$, **1117**
McRuer, D. T., and R. G. Halliday, analysis and synthesis of certain closed-loop servo systems, **2776**
McSkimin, H. J., elastic constants of Si and Ge single crystals and fused silica, **189**
McWhorter, A. L., and R. H. Kingston, channels and excess reverse current in Ge junctions, **3587**
Mebs, R. W., J. H. Darr and J. D. Grimsley, metal ultrasonic delay lines, **2014**
Medhurst, R. G., echo distortion in f.m. multiplex, **247**; harmonic distortion of f.m. waves by linear networks, **2503**
—— with E. G. Hamer, harmonic distortion due to echo signals, **245**
—— with others, design of super-directive aerial arrays, **19**
Medill, J., miniature piezoelectric microphone, **955**
Medina, L., capacitance meters, **215, 2473**; prevention of ionization in small power transformers, **2584**; peak voltmeter with long time constant, **3628**
Medvedev, V. S., with others, photoresistivity of CdS single crystals, **1118**
Meek, J. H., magnetic, auroral and ionospheric variations at Saskatoon, **1768, 2395**
—— and A. G. McNamara, magnetic disturbances, sporadic E and radio echoes associated with aurora, **3221**
Meers, R. A., with others, Manchester/Kirk o' Shotts television radio-relay system, **2784,** (**A**)**3366**
Meewezen, W. D., with J. Anderson, mobile ph.m. transmitter-receiver unit, **2510**
Megaw, H. D., ferroelectricity and crystal structure, **1789, 2410**
Megla, G., Berlin-Leipzig television link, **2782**
Mehron, M., and W. Otto, multiplier for computers, **1322**
Meiboom, S., and B. Abeles, theory of galvanomagnetic effects in *n*-type Ge, **2425**
Meier, R., investigations in tenth-mm-λ region, **464**
Meijering, J. L., crystal aggregates with random nucleation, **458**
Meili, E., control of glow-discharge triodes by very small currents, **1351**
Meinel, E., radio equipment of long-wave telegraphy station, **1918**
Meinke, H., high-linearity demodulation of f.m. oscillations, **1895**; wide-band aerials with high gain efficiency, **2865**
—— and H. W. Urbarz, characteristic impedance of rectangular waveguides, **3131**
Meinnel, J., Hertzian absorption bands in monatomic semiconductors, **2120**
Meister, F. J., accuracy of hearing in traffic noise, **3112**
Meixner, J., diffraction of e.m. waves by conducting disk, **379**
Mellen, R. H., ultrasonic spectrum of cavitation noise, **2833**
Melluish, D. M., ringing-choke h.v. unit, **557**
Mendel, J. T., C. F. Quate and W. H. Yocom, beam focusing with periodic permanent magnets, **2546**
Meneley, C. A., and C. D. Morrill, application of differential analysers, **50**
Menzer, E., and H. Voelkel, design of phase equalizers for television, **1933**
Mergner, G. C., with others, universal meter, **2182**
Merriman, J. H. H., with others, Manchester/Kirk o' Shotts television radio-relay system, **2784,** (**A**)**3366**
Merritt, F. R., with others, temperature dependence of resonance line width in Ni-Fe ferrite, **2446**; spin resonance of donors in Si, **3254**
Merz, W. J., double hysteresis loop of $BaTiO_3$ at the Curie point, **195**
Mesnard, G., thermionic emission of ZrO_2, **1257**; thermionic properties of thoria coatings, **1258**; activation of ThO_2 and ZrO_2 thermionic cathodes, **2817**
—— and L. Eyraud, variation of dielectric constant of plastics with field, **752**
—— and R. Uzan, moulded cathodes of Ni and alkaline-earth oxides, **2818**
—— with R. Uzan, cathodes made by compressing and sintering mixtures of powders, **3728**
Metson, G. H., and M. F. Holmes, valve performance and interface resistance, **1256**
—— and others, life of oxide cathodes, (**D**)**906**
Metzger, S., microwave relay link for military use, **2771**
Meuleau, C. A., with G. J. Lehmann, temperature regulator for Ge metallurgy, **1788, 2409**
Meunier, P., telephone-repeater valve, **1622**
Meunier, R., M. Bonpas and J. P. Legrand, G-M counters with mixtures of rare gas and organic vapour, **1540**
Mevel, J., voltage and current stabilizers for laboratory use, **3046**; h.v. power supply for mm-λ klystrons, **3363**
Mey, J., and H. Thibert, measurement of time constants of indicating instruments, **1143**
Meyer, A., air-core coil design, **656**
Meyer, E., and E. Skudrzyk, acoustic properties of gas-bubble screens in water, **933**
—— and others, anechoic chamber for sound and short e.m. waves, **942**
Meyer, M. A., B. M. Gordon and R. N. Nicola, operational-digital feedback divider, **2322**
Meyer, N., interpretation of directional diagrams of sound emitters and receivers, **7**
Meyer-Eppler, W., correlation in communication engineering, **846**; electronic music, **3333**
Miane, M., with V. Gavreau, ultrasonic generators, **2550**; nonisotropy of acoustic radiation pressure, **2834**
Michael, F. R., with T. H. Briggs, foreign tube design techniques, **3396**
Middleton, A. E., and W. W. Scanlon, thermoelectric power of Ge, **1091**
Middleton, D., statistical theory of signal detection, **3031**
—— W. M. Gottschalk and J. B. Wiesner, noise in c.w. magnetrons, **579**
Mielenz, K. D., pressure measurement with Pirani gauge, **2683**
Mihran, T. G., effect of space charge on beam loading in klystrons, **2547**
Miles, J. W., transient loading, of baffled strip, **297,** of baffled piston, **298**; nonspecular reflection at rough surface, **2282**
Milin, V. B., anomalous electric fields in the atmosphere, **2946**
Millar, B., remote control system for Van de Graaff generator, **817**
Miller, C. F., with others, electric strength of air at r.f., **2628**
Miller, C. W., and G. Saxon, anomalous attenuation in linear accelerator, **497**
Miller, E. C., signal-operated tone compensation, **2349**
Miller, E. J., with F. A. Milne, direct-coupled transitron, **3182**
Miller, K. S., and F. J. Murray, error analysis of differential analysers, **643**
—— and R. J. Schwarz, interference of pulse trains, **238**
Miller, M. A., joining Al to other materials, **787**
Miller, R. L., visual monitor for magnetic tape, **1290**
Miller, S. E., coupled wave theory and waveguide applications, **2562**
Millet, J., with others, semiconductor complexes forming nonlinear resistors, **434**
Millington, G., and J. C. Thackray, ground-wave propagation curves for 150 kc/s to 10 Mc/s, **235**
Mills, B. Y., discrete sources of cosmic r.f. radiation, **333**; radio brightness distribution over sources of cosmic noise, **1754**
—— and A. G. Little, high-resolution aerial system, **633**
Mills, I., with R. S. Read, nomogram for design of resistance windings, **2326**
Milne, F. A., and E. J. Miller, direct-coupled transitron, **3182**
Milnes, A. G., 3-phase transductor circuits, (**D**)**657**
Milsom, A. S., with H. W. Newton, distribution of geomagnetic storms in sunspot cycle, **3207**
Milwright, A. L. P., beacon for ship identification, **2952**
Mindlin, R. D., and H. Deresiewicz, thickness-shear vibrations of crystal plates with incomplete electrodes, **1698**; suppression of overtones of crystal plates, **1699**
—— and M. Forray, vibrations of contoured crystal plates, **1697**
Minnick, R. C., magnetic switching circuits, **2581**
Minorsky, N., interaction of nonlinear oscillations, **103**

Minozuma, F., and H. Enomoto, short-period fading due to turbulent ionosphere, **512, 2752**
Mintzer, D., wave propagation in inhomogeneous medium, **931, 1633, 2275**
—— with E. T. Kornhauser, vibration of mass-loaded membranes, **921**
Mishchenko, M. T., with A. I. Andrievski, copper-oxide contact layer, **3597**
—— with others, electrical conductivity of Cu_2O, **1815**
Mishin, D. D., with Ya. S. Shur, effect of elastic tension on susceptibility **445**
Missen, J. L., crystal-triode push-pull amplifier, **70**
Mita, S., with others, microwave relay for Japanese television, **2783**
Mitani, K., radial extent of glow in microwave gas discharge, **2916**
Mitchell, G. R., and A. E. Goldberg, further evidence for the energy gap of PbS, **2436**
Mitchell, W. M., making stable nonrectifying contacts to semiconductors, **3280**
Mitra, A. P., equilibrium height distribution of NO in high atmosphere and resulting D layer, **2087**
—— and R. E. Jones, location of ionospheric current system responsible for geomagnetic effects of solar flares, **1423;** enhancement of ionospheric ionization during solar flares, **2672**
—— and C. A. Shain, ionospheric absorption measurements using observations of 18·3-Mc/s cosmic radio noise, **1426**
Mitra, S. N., with P. K. S. Gupta, corpuscular eclipse in F_2 layer, **2673**
Mitrović, D. M., nonlinear servomechanism with several variables, **858;** elements with discontinuous operation in analogue computation, **3475**
Miya, K., characteristics of ionosphere disturbance during severe magnetic storm, **3556**
Miyahara, S., with others, magnetization of Mg ferrite, **1108**
Miyatani, S., and Y. Suzuki, conductivity of Cu_2S, **1120**
Moeller, F., barrier-layer rectifiers for measurement of very small voltages, **1501**
Moffat, B., saturable transformers as gates, **3484**
Moffett, R., signal/noise meter checks television links, **210**
Moir, J., stereophony in the cinema, **619**
Moles, A., variable-gain amplifiers in acoustic measurements, **1978**
Möller, C., German transistors, **1606**
Molodtsova, L., with others, investigation of paramagnetism of ferrites, **2443**
Monelli, R., coaxial cable of Italian communication network, **13**
Mongin, B., with others, ionosphere observations at the Kerguelen Islands, **406**
Monroe, R. B., with others, C.B.S. Television City technical facilities, **3052**
Monson, H. O., and R. C. Binder, jet-type ultrasonic vibrators, **940**
Montel, E., with others, high-sensitivity monofilar electrometer, **1511**
Montgomery, G. F., comparison of amplitude and angle modulation for binary-coded messages, **1560;** message error in diversity frequency-shift reception, **3036**
Montgomery, H. C., and M. A. Clark, shot noise in junction transistors, **1248**
Moody, H. J., and G. J. B. Crawford, electronic ratchet, **3153**
Moon, J. H., re-radiation from resonant ship's aerials, **2403**
Moon, P., and D. E. Spencer, TEM waves in cylindrical systems, **1298;** meaning of the vector Laplacian, **1844;** interpretation of Ampère experiments, **2922;** Coulomb force and Ampère force, **2923;** a new electrodynamics, **2924**
Moon, R. J., with Kuo-Chu Ho, potential plotting for electron-optical systems, **912**
Moorat, I. M., with others, statistical results on ionospheric storm phenomena, **135**
Moore, A. R., and J. I. Pankove, effect of junction shape and surface recombination on transistor gain, **2797**
Moore, B. H., with others, provision of communications for Coronation of Her Majesty Queen Elizabeth II, **251**
Moore, E. F., with C. E. Shannon, machine aid for switching-circuit design, **60**
Moore, H., vibration generators, ancillary equipment and applications, **1881**
Mooser, E., graphical determination of Fermi energy in semiconductors, **1453**
—— with G. Busch, magnetic properties of grey tin, **1476**
Morcom, W. J., unattended broadcasting transmitters, **281;** high-power communication transmitter, **3035**
Morgan, A. R., with others, recording and reproducing television signals, **2517**
Morgan, C. G., and D. Harcombe, initiation of electrical discharges, **385**
Morgan, S. P., with R. A. King, formulae for laminated coaxial cables, **3124**
Morgan, T. J., with others, University of Washington 60-in. cyclotron, **3323**
Morgulis, N. D., and N. G. Nakhodkin, effective depth of secondary emission, **2363**
Morin, F. J., lattice-scattering mobility in Ge, **1806;** electrical properties of αFe_2O_3, **2433,** of NiO, **2434**
—— and J. P. Maita, conductivity and Hall effect in intrinsic range of Ge, **3257**
—— with others, dislocations in plastically deformed Ge, **2124;** effect of Ni and Cu on recombination in Ge, **2429**
Morinaga, T., with F. Iwai, harbour R/T equipment, **3679**
Morita, T., and L. S. Sheingold, coaxial magic-T, **1694**
Moritz, K., calculation of attenuation and distortion of travelling waves, **1297**
Morley, L. W., areal distribution of geomagnetic activity near auroral zone, **2383**
Morrill, C. D., with C. A. Meneley, application of differential analysers, **50**
Morris, D., Q as a mathematical parameter, **2875**
Morris, G. W., and P. G. M. Dawe, l.f. band-pass filter, (**D**)**676**
Morris, H. D., with R. S. Mackay, transient response of glow discharges, **2828**
Morris, R. V., with others, current-step waveform generator, **2183**
Morrison, R. B., variation with distance of atmospheric waveforms, **420**
Morrison, S. R., changes of surface conductivity of Ge with ambient, **2424**
Morrison, W. C., K. Karstad and W. L. Behrend, test instruments for colour television, **1152**
—— with G. L. Fredendall, effect of transmitter characteristics on N.T.S.C. colour television signals, **1199**
Morten, F. D., with H. K. Henisch, forward characteristic of injecting area contacts on Ge, **1240**
Mortier, P. A. C., and J. F. Roose, velocity of discharge propagation in G-M counters, **2194**
Moses, H. E., and Ta-You Wu, dissociation of O_2 in upper atmosphere, **1053**
Moses, R. C., phase-angle measurements at a.f., **206**
Moss, F. P., a.f. phase meter, **3307**
Moss, T. S., PbTe and PbSe infrared detectors, **285;** photoeffects in PbS single crystals, **1778**
—— L. Pincherle and A. M. Woodward, photoeffects in Ge, **748**
Mostafa, A. E., effect of harmonics on oscillation frequency, **2600**
—— and M. El-Shishini, new method for treating superregenerative detectors, **2761**
Mott, B. W., with H. R. Haines, production of fine wires, **1842**
Moullin, E. B., current induced in conducting ribbon, (**A**)**704, 1998**
Moulon, J. M., intrinsic stability of quadripole, **3163**
Mounier, C., electric analogue computers, **1314**
Mourier, G., with A. Leblond, lines with bar structure for u.h.f. valves, **3087**
Mourmant, P., geometric construction of the homographic transformation, **791**
Mozley, R. F., with others, measurement of two-dimensional magnetic fields, **3297**
Mueller, C. W., and J. I. Pankove, p-n-p alloy junction transistor, **1955**
Mueller, G. E., hollow-beam cathode, **1966**
Mühe, W., dynamic forces on gramophone pickups, **2297**
Muller, F. A., h.f. compensation of RC amplifiers, **3177**
Müller, J., method of equalizing television transmissions, **3067**
Müller, K., parallel connection of sections in RIAS transmitter, **1943**
Muller, M. W., and W. L. Beaver, application of perturbation theory to travelling-wave valves, **2808**
Müller, P., investigation of G-M counters by X-ray pulses, **1539**
Müller, R., modification of field strength in waveguide due to thin wire, **329;** reflection of e.m. waves at surfaces with periodic structure, **628;** diffraction of e.m. waves by strip-gratings, **1374**
Müller-Lübeck, K., rectifier with smoothing capacitor, **2225**
Mundrashi, W. P., stability of grounded-grid amplifiers, **371**
Munier, H., with others, ionosphere observations at the Kerguelen Islands, **406**
Munro, G. H., reflections from irregularities in ionosphere, **1056**
Murakami, T., v.h.f.-u.h.f. television tuner, **553**
Muroga, S., capacity of discrete noisy channel, **254**
Murphy, B., with S. Waring, portable high-speed c.r.o., **1862**
Murray, F. J., with K. S. Miller, error analysis of differential analysers, **643**
Murray, J. D., with others, evidence of harmonics in spectrum of solar radio outburst, **391;** radio evidence of ejection of fast particles from sun, **2377**
Murray, W. A. S., and J. K. Hargreaves, lunar radio echoes and Faraday effect in ionosphere, **2748**
Murthy, B. V. R., with K. R. Ramanathan, daily variation of ozone in atmosphere, **723**
Muscheid, W., demonstration of traps in CdS single crystals, **1811;** effect of O_2 on conductivity of CdS, **1812**
Müser, H., quantum-statistical treatment of internal photoeffect, **1456**
Mushiake, Y., with S. Uda, gain of linear-array aerials, **1996;** principle of Yagi-Uda aerial, **2314, 3136;** working gain of aerial connected to feeder, **3462;** matching devices for doublet aerial, **3463**
—— with others, transmission loss of waveguide with thin dielectric film, **2304**
Muto, Y., with others, electrical properties of Te crystals at low temperatures, **2702**
Myakinin, E. I., with A. R. Shul'man, secondary emission of Ni and Mo, **2362**
Myasnikov, L. L., and G. K. Ul'yanov, magnetic dispersion of sound, **3433, 3434**
Myncke, H., with A. van Itterbeek, vibration of plates with damping layer, **948**

Nabarro, F. R. N., with S. C. Hunter, propagation of electrons in strained metallic lattice, **1792**
Nachman, J. F., and W. J. Buehler, 16% Al-Fe alloy cold rolled in order-disorder temperature range, **2456**
Nagai, K., R. Sato and N. Saito, design of v.h.f. band-pass filter, **1715**
—— R. Sato and G. Sato, 4-terminal-network theory for multi-element array, **1682**
Nagarajan, K., with others, F-type radiosonde, **1154**
Nagase, M., asymptotic expansions of Bessel functions, **2994**
Nagata, S., with others, ionization of gas by electrons, **703**
Nail, J. J., with W. Sichak, u.h.f. omnidirectional aerial systems for large aircraft, **2568**
Naismith, R., subsidiary layer in E region, **2666**
Nakamura, K., with K. Noga, cathodoluminescence of (BaSr)O, **3240**

Nakamura, T., mechanism of ferroelectric domain-boundary movement, **3243**
Nakata, Y., ionosphere observation during partial eclipse of Feb. 14, 1953, **2940**
—— M. Kan and H. Uyeda, simultaneous measurement of ionosphere virtual height and critical frequency, **2937**
Nakhodkin, N. G., with N. D. Morgulis, effective depth of secondary emission, **2363**
Naqvi, A. M., with B. N. Bhargava, very long sequences of geomagnetic activity, **2386**
Narita, S., photoemission of thin films evaporated from BaO, **2689**
Naschke, E., with J. Benoit, permeability of iron, from 0 to 7000 Mc/s, **2984,** influence of domain thickness on, **3271**
Nastuk, W. L., with others, preamplifier for recording bioelectric potentials, **1360**
Nauer, H., investigations of ball lightning using models, **1769**
Naumov, B. N., with B. N. Petrov, second U.S.S.R. conference on theory of automatic regulation, **3637**
Naupert, F., with G. Schadwinkel, electroacoustic equipment of Hamburg-Lokstedt television centre, **3706**
Neck, H., quality problems in transmitting equipment, **2792**
Néel, L., orientational superlattices, **1101,** and mechanical deformations, **1483,** and surface magnetic anisotropy, **2983;** surface anisotropy of ferromagnetic substances, **1103;** magnetic properties, of hard materials, **2141,** of rare-earth ferrites, **3275;** approach to magnetostriction saturation, **3276**
Neeteson, P. A., Flywheel Synchronization of Sawtooth Generators, (B)**880;** valves in pulse techniques, **1006;** bi-stable multivibrator analysis, **1350**
Neidhardt, P., modern aerial theories, **1301**
Neill, J. C., with G. E. Stout, radar measurement of area rainfall, **424**
Neilsen, I. R., with others, high-power pulsed klystron, **580**
Nelson, C. V., with D. Gabor, resultant dipole of heart from measurements on body surface, **2735**
Nenning, P., influence of dead time of G-M counter tubes, **3331**
Neprimerov, N., Faraday effect at cm λ, **3202**
Nestel, W., Hamburg-Lokstedt television building, **563**
Nethercot, W., with A. H. Ball, ignition interference in television, **572**
Netushil, A. V., temperature distribution in h.f.-heated laminated materials, **3638**
Neubauer, J. R., with others, New Jersey turnpike highway communication system, **2769**
Neuert, H., with B. Koch, magnetic control of oscillator frequency by electrodeless gas discharge, **90**
Neuhauser, R. G., A. A. Rotow and F. S. Veith, image orthicons for colour cameras, **1216**
Neville, P. D., with L. Hampson, valves for band-III television tuners, **3417**
Newhouse, V. L., magnetic and ferroelectric computing components, **2579**
—— with R. S. Tebble, Barkhausen effect in single crystals, **450**
Newman, E. A., D. O. Clayden and M. A. Wright, Hg-delay-line storage system for ACE computer, **61,** (D)**2012**
Newman, H. L., with W. K. Squires, video-amplifier design charts, **1231**
Newman, M. M., with others, protection of aircraft aerials from discharges, **1586**
Newman, R., infrared absorption of injected carriers in Ge, **1083;** recombination radiation in Ge, **1084;** photoconductivity, in Au-Ge alloys, **2688,** in gold-doped Si, **3256**
Newsome, J. P., correction of *Q*-meter readings, **3622**
Newson, F. W., with H. E. Sturgess, independent-sideband s.w. transmitter for radio link, **882**
Newstead, G., determination of velocity of winds from spaced fading experiments, **3217**
Newton, H. W., and A. S. Milsom, distribution of geomagnetic storms in sunspot cycle, **3207**
Newton, R. F., and L. K. Lee, mechanized assembly of television receivers, **556**
Nexon, V. J., industry coordination of microwave communication systems, **3676**
Nguyen Thien-Chi. See Thien-Chi, Nguyen.
Nichols, M. H., growth and surface properties of Ta crystals, **2715**
Nicola, R. N., with others, operational-digital feedback divider, **2322**
Nicolet, M., aeronomic problem of O_2 dissociation, **3208**
—— and P. Mange, dissociation of O_2 in high atmosphere, **2389**
Nieke, H., Hall-effect in Cu_2O below room temperature, **438**
Niessen, K. F., ferrites, magnetic behaviour of, **2711;** spontaneous magnetization of, **3606**
Nifontoff, N., comparison between imperfect contact and thin metal films, **2355;** conduction mechanism of thin metal layers, **2695;** hysteresis in rectifier contacts and thin films, **3249**
Nijboer, B. R. A., with P. Mazur, statistical mechanics of matter in e.m. field, **1390**
Niklas, W. F., negative-ion component of electron beam in c.r. tubes, **3421**
Nilsson, S. G., motion of electrons in combined magnetic fields, **1384**
Nimura, T., and K. Kido, effects of surrounding device of cone-type loudspeakers, **2293**
—— and Y. Watanabe, sound radiation from zonal radiators, **3436**
Nind, E. A., with others, low-level-modulation vision transmitters, **274,** (D)**2518**
Nishida, S., with others, transmission loss of waveguide with thin dielectric film, **2304**
Nitz, I. C., with others, vacuum-tube detector using large transit angles, **3096**
Noble, S. W., and P. J. Baxandall, d.c. amplifier based on magnetic modulator, (D)**1012**
Noga, K., and K. Nakamura, cathodoluminescence of (BaSr)O, **3240**
Nolle, A. W., with G. T. Kemp, attenuation of sound in small tubes, **1635**
Nomura, Y., diffraction of electric waves, by conducting wedge, **2077,** by parallel screens, **2494;** Sommerfeld's surface waves, **3662**
—— and T. Hattta, theory of linear aerial, **2309**
Nomura, T., and others, microwave relay for Japanese television, **2783**
Nonnenmacher, W., with R. Feldtkeller, equivalent circuit diagrams for transducers, **3115**
Norinder, H., and R. Siksna, electrification of snow, **414**
Norman, L. W., function generator using conductive plastic, (A)**1867**
Norsworthy, K. H., electronic multiplier, **1310**
Novick, G., with others, long-line effects on tunable radar, **1433**
Novosil'tsev, N. S., with others, temperature changes of $BaTiO_3$ single crystals, **1116**
Nowak, A., Miller integrator as sawtooth-voltage generator, **94**
Nukiyama, H., E. Takagi and A. Sato, effects of crystal size and shape on oxide-coated cathodes, **2265**
Nussbaum, A., electrical properties of pure Te and Te-Se alloys, **2701**
Nyborg, W. L., acoustic streaming equations, **928**

Oakes, J. B., analysis of transistor a.f. oscillators, **3174;** junction-transistor pulse-forming circuits, **3504**
Oatley, C. W., and J. G. Yates, bridges with coupled inductive ratio arms, **1860**
Obayashi, T., F_2 layer distribution in polar region, **2669**
Oberst, H., with others, pulse measurement of reflection from water-borne sound absorbers, **952**
O'Brien, P. A., distribution of radiation across solar disk at metre λ, **2648**
—— and C. J. Bell, distribution of r.f. brightness across solar disk, **2649**
O'Brien, R. S., with others, C.B.S. Television City technical facilities, **3052**
O'Callaghan, T., synthesis of reactance networks, **1708**
O'Connor, D. G., magnetic drum design, **338**
O'Donnell, T. J., and E. M. Williams, impedance transformation in band-pass filters, (A)**1712**
Oesterlin, W., and A. G. Braun, mains-supplied d.c. amplifier, **2345**
Offner, F. F., wide-range d.c. amplifier, **3511**
Oguchi, B., with others, path-length lens antenna, **3471**
Oguti, T., with N. Fukusnima, theory of Sp field, **2941**
Ohashi, K., with others, path-length lens antenna, **3471**
Ohta, M., with others, ionization of gas by electrons, **703**
Oizumi, J., design of duplex feedback amplifier, **3178**
Okamura, T., resonance absorption in ferrites, **2712**
Oldekop, W., and F. Sauter, theory of work function of metals, **2073**
Oleesky, S. S., designing radomes for supersonic speeds, **975**
Oliner, A. A., calibration of slotted section for microwave measurements, **2169**
—— with L. B. Felsen, equivalent-circuit parameters for dissipative microwave structures, **1499;** graphical analysis of two-port waveguide junction, (D)**3456**
Ollé, J., with others, multibeam c.r.o., **1624**
Ollendorff, F., relativistic electron trajectories in planar magnetron, **288;** synchrocyclotron with fixed frequency, **2189**
Olmstead, J., with others, tacitron, low-noise thyratron, **3732**
Olson, H. F., and E. G. May, electronic sound absorber, **1654**
—— J. Preston and J. C. Bleazey, uniaxial microphone, **957**
—— and others, recording and reproducing television signals, **2517**
Olson, K. W., variations of phosphorescence decay with frequency of applied field, **1781**
Olthuis, J. M., studio equipment for television broadcasting, **877**
Olthuis, R. W., klystron design for microwave relay systems, **2771**
Onder, K., transformerless amplifier, **1722;** mobile f.m. broadcast receiver design, **2501**
Onishi, T., with M. Kikuchi, "photo-after-effect" of Ge rectifiers, **2794**
Oono, Y., and K. Yasuura, synthesis of networks with *n* pairs of terminals, **3158**
Ord, G., with T. Kilburn, digital-computer decimal storage system, **980**
Orlando, A. J., with R. E. Greenquist, analysis of passive-reflector aerial systems, **2866**
Orthuber, R. K., and L. R. Ullery, solid-state image intensifier, **3061**
Ortusi, J., properties of oxide cathodes regarded as mixed semiconductors, **1968**
Osborne, B. W., electron content of F_2 layer, **729**
Osborne, F. J. F., secondary emission from BeCu, **1481**
Osherovich, A. L., and S. F. Rodionov, glow of night sky at 1–3μ λ, **3558**
Oster, S. M., and L. D. Wilson, e.m. clutch for digital computers, **45**
Ostroumov, A. G., electrothermal convection in air, **3518**
Oswald, J., elementary ladder filters, **1710**
Otsuka, E., with others, resistivity of polycrystalline Se, **2972**
Ott, H., note on Zenneck surface wave, **1543**
Otto, W., with M. Mehron, multiplier for computers, **1322**
Ouang Te-Tchao. See Te-Tchao, Ouang.
Oudin, J., new developments in pulse technique for cable testing, **2464**
Ouvrier, G., echo phenomena in multitrack magnetic recording systems, **2845**
Overbosch, E., with others, preparation of metals and alloys, **1493**
Owens, H. L., with A. Coblenz, theory and application of transistors, **283, 341, 658, 1013**
Owens, J. H., audio oscillator uses new *RC* design, **2045**
Ozarow, V., properties of Ge crystals containing compensated impurities, **2126**
Özdogan, I., e.m. variometer for vertical component, **401**

Packard, K. S., strip transmission line, **3453**
de Packh, D. C. See De Packh, D. C.

Paetzold, H. K., vertical distribution of ozone during eclipses of the moon, **402**
Page, H., impedance specification of television transmitting aerial, **3460**
Page, I. H., with T. H. Chambers, logarithmic receiver, **3345**
Page, R. M., comparative study of modulation methods, **1174**
Page, R. S., compact electron microscope, **3648**
Pakhomov, A., with E. Kondorski, temperature dependence of magnetization of metals and alloys, **3609**
Palazzi, G. D., technique of fluxgate-type magnetometers, **3626**
Palevsky, M., Bendix digital differential analyser, **37**
Palmer, H. P., with others, galactic radio sources of large angular diameter, **2657**
Palmer, N. R., choice of television standard, **2235**
Palmer, R. C., system delay characteristics in N.T.S.C. colour television, **1199**
Palmer, R. N., ceramic tube mount for automatic assembly, **3404**
Palmer, T. M., small sensitive magnetometer, **1142**
Palócz, I., frequency spectrum of strapped magnetron, **3088**
Paa, Wen Yuan, u.h.f. television amplifier valves, **2526**
Pancholy, M., with others, oscillations of quartz crystal, **353**
Pankove, J. I., recrystallization of Ge from In solution, **2447**; pulsed curve tracer for semiconductor testing, **3631**
—— with A. R. Moore, effect of junction shape and surface recombination on transistor gain, **2797**
—— with C. W. Mueller, *p-n-p* alloy junction transistor, **1955**
Pannetier, P., with others, high-sensitivity monofilar electrometer, **1511**
Papas, C. H., with A. Erdélyi, diffraction by strip, **2350**
Papoulis, A., penetration of e.m. wave into ferromagnetic material, **2006**; nondestructive read-out of magnetic cores, **3298**
Papoular, M., linear accelerator, improvement of performance of, **1874**, with preliminary bunching, **2486**
Parfenov, V. V., effect of plastic deformation on magnetization of Fe and Ni, **1835**
Parfianovich, I. A., energy levels of electron traps in phosphors, **3567**
Pargamanik, L. E., with G. Ya. Lyubarski, statistical theory of magnetron, **287**
Park, D., with F. Brown, magnetic resonance phenomena in ferrites, **2144**
Parker, D. J., S. W. Johnson and L. T. Sachtleben, aperture-response testing of projection optical systems, **1594**
Parker, J. H., Jr, electron ejection by slow positive ions incident on metallic surfaces, **2356**
Parkin, P. H., and others, acoustics of Royal Festival Hall, **312**
Parkinson, W. D., atmospheric space charge, (**D**)**2663**
Parmet, B. S., and L. M. Kaminsky, transients in N.T.S.C. colour system, **543**
Parolini, G., sound-absorption coefficient measurements at Rome, **1655**
Parsons, E., with H. Freeman, time-sharing analogue multiplier, **2319**
Parthasarathy, S., and A. F. Chhapgar, viscosity and anomalous absorption of ultrasonic waves, **306**
—— S. S. Chari and D. Srinivasan, ultrasonic absorption in organic liquids, **1274**, **1275**
—— M. Pancholy and A. F. Chhapgar, oscillations of quartz crystal, **353**
—— D. Srinivasan and S. S. Chari, ultrasonic waves in liquids, absorption of, **4**, temperature effect of, **5**, frequency dependence of power of radiation, **1272**
Parton, J. E., oblique coordinates and a.c. potentiometer, **212**
——and W. D. Sutherland, combined magnetization of magnetic materials, **1492**
Parzen, P., with G. L. Hall, measurement of resonant-cavity characteristics, **799**
Passerieux, P., interference to radio and television from h.v. lines, **519**
Patchett, G. N., synchronizing separators and interlacing, **2527**
Patrick, L., change of ferromagnetic Curie points with pressure, **2142**
Paucksch, H., H. Schneider and H. Schneiders, construction of v.h.f. transformer, **3478**
Paul, F. A., comparison of 6AK5 and 5654 valves, **2804**
Paul, W., and H. Brooks, pressure dependence of resistivity of Ge, **3264**
Pauthenet, R., and P. Blum, thermomagnetic study of Gd ferrite, **3273**
—— with P. Blum, study of ferromagnetism of cementite, **1104**
—— with others, thermomagnetic study of ferrites of Dy and Er, **3274**
Pavlovic, A., with others, phase transitions in ferroelectric $KNbO_3$, **2115**
Pawsey, J. L., with F. F. Gardner, study of D region using partial reflections, **132**
Payne, D. V., distributed-amplifier theory, (**D**)**1721**
Peachey, F. A., with others, automatic monitoring of broadcast programmes, **857**
Peake, H. J., and N. Davy, magnetic fields of uniformly magnetized ellipsoids of revolution, **116**
Pearcey, T., and G. W. Hill, programme design for C.S.I.R.O. Mark I computer, **640**, **641**
Pearlman, A. R., transistor power supply for G-M counters, **3361**
Pearlman, N., with P. H. Keesom, atomic heat of Ge below 4° K, **1090**
Pearson, G. L., and C. S. Fuller, Si *p-n* junction power rectifiers and lightning protectors, **2226**
——W. T. Read, Jr, and F. J. Morin, dislocations in plastically deformed Ge, **2124**
—— with others, Si *p-n*-junction photocell for converting solar radiation, **3076**; spin resonance of donors in Si, **3254**
Pearson, H. A., with others, hearing aids, **1664**
Pearson, J. D., transient sound waves in tubes, **611**; diffraction by circular waveguide, **1020**; theory of right-angled junctions in waveguides, **3454**
Pearson, R. F., production of single crystals of Ni, **1494**
Pearson, R. M., with F. A. Benson, comparison of materials for microwave attenuators, **678**
Pearson, W. B., with D. K. C. MacDonald, anomalous electron scattering in metals, **3190**
Pease, R. S., with F. B. Johnson, pile irradiation of quartz-crystal oscillators, **3610**
Pebay-Peyroula, J. C., and P. Simon, direct-reading electronic correlator, **3144**
Peek, S. C., disk-seal triode as u.h.f. amplifier, **910**
Peeler, G. D. M., and D. H. Archer, microwave Luneberg lens, **336**
Peirson, D. H., and J. Pickup, scintillation counter for radioactivity prospecting, **1161**
Pelchowitch, I., evaporation products of alkaline-earth oxides, **1967**
—— with others, photomultiplier background noise, **1958**
Peli, L., with others, amplifier with low dissipation and short rise time, **3507**
Pélissier, R., radio interference from very-high-voltage lines, **521**
Peltz, J. R., with others, signal overload relay for television receivers, **2243**
Pendleton, T. A., underground quartz resonators, **470**
Penney, G. W., E. A. Sack and E. R. Wingrove, resonant-dielectric-amplifier frequency response, (**A**)**2903**
Penning, P., with others, thermal conversion of Ge, **435**
Pensak, L., metrechon half-tone storage tube, **3418**
Pepinsky, R., with F. Jona, dielectric properties of double tartrates, **1836**
—— with G. Shirane, phase transitions in antiferroelectric $PbHfO_3$, **782**; dielectric properties of Cd and Pb niobates, **1072**
—— with others, phase transitions in ferroelectric $KNbO_3$, **2115**
Percival, W. S., with others, low-level-modulation vision transmitters, **274**, (**D**)**2518**
Pereira-Gomes, A., with L. Robin, symmetrical biconical aerial with arbitrary cone angle, **1679**
Perekalina, T. M., ferromagnetic resonance in CrTe alloy, **180**
Perel', V. I., with Yu. M. Kagan, theory of probe in plasma, **3531**
Peretko, H. T., pulse duration modulation, **250**
Perlat, A., and J. Voge, atmospheric attenuation of mm and cm waves, **1894**
Perry, R. E., radar detection of storms at Entebbe airport, **153**
Persano, A., with others, dynamics of corona discharge between cylindrical electrodes, **2630**
Peter, M., with others, properties of colloidal ferroelectric materials, KH_2PO_4, **776**
Peter, R. W., and J. A. Ruetz, influence of secondary electrons in travelling-wave valves, **581**
—— S. Bloom and J. A. Ruetz, space-charge-wave amplification along electron beam, **2811**
—— with S. Bloom, transmission-line analogue of modulated electron beam, **2810**; minimum noise figure for travelling-wave valve, **3402**
—— with W. J. Dodds, filter helix for travelling-wave valves, **1963**
Peters, C., and H. Strong, manufacture and testing of Ge rectifiers, **889**
Peterson, A. M., and R. L. Leadabrand, long-range radio echoes from aurora, **3223**
—— with others, length of meteor trails, **124**; ionosphere wind analysis by meteoric echo techniques, **2393**
Peterson, G. E., design of visible-speech devices, **2840**
Peterson, J. W., contact charging, between borosilicate glass and Ni, **2622**, between nonconductor and metal, **3516**
Peterson, W. W., with others, response of panoramic receiver, **2755**
Petrie, W., with S. B. Brown, effect of sunrise on reflection height of l.f. waves, **2092**
Petrov, B. N., and B. N. Naumov, second U.S.S.R. conference on theory of automatic regulation, **3637**
Pettit, J. M., with F. E. Terman, Electronic Measurements, (**B**)**2733**
Petzoldt, H., studio installation at Radio Luxemburg, **529**
Peuteman, A., photoelectric pyrometer, **493**
Pfann, W. G., redistribution of solutes by formation and solidification of a molten zone, **2125**
Pfannenmüller, H., rectifiers in electrical measurements, **3299**
Pfender, E., quantitative development of discharge, **1734**
Pfestorf, G. K. M., and R. S. N. Rau, ions and barriers in electric discharges, **1379**
Phelps, W. A., with T. A. Jones, level compensator for telephotograph systems, **879**
Philbert, G., electron emission resulting from ion impact, **386**
Phillips, C. H., with E. G. Clark, colour demodulators for television receivers, **2788**
Phillips, J. H., R. Street and J. C. Woolley, magnetic viscosity in precipitation alloys, **3272**
Phinney, T. W., "Vagabond" wireless microphone system, **2765**
Phyfe, J. D., with others, theatre sound system, **1282**
Picard, E., and A. Rogozinski, measurement of dead time of G-M counter, **228**
Pickart, S. J., with L. R. Maxwell, magnetization in Ni ferrite-aluminates and -gallates, **1830**
Pickett, J. M., with others, identification by voice, **2839**
Pickup, J., with D. H. Peirson, scintillation counter for radioactivity prospecting, **1161**
Piddington, J. H., theories of solar phenomena depending on moving sunspot fields, **1403**; generation of radio noise by cosmic sources, (**D**)**2379**
—— and R. D. Davies, thermal radio emission from sun, **2645**
Piefke, G., reflection e.m. waves at metal-plate media, **2316**
Piel, G., circuit technique for high-speed computer, **2009**
Piepgras, E., electronic switch, **1349**
Pierce, J. R., magnetic fields for focusing electron beams, **911**; coupling of modes of propagation, **1987**
—— and P. K. Tien, coupling of modes in helices, **3451**
—— and L. R. Walker, 'Brillouin flow' with thermal velocities, **1028**

Pierre, É., with others, photodianode, **1249, 2544**
Pietz, H., with H. Heuser, Höhbeck v.h.f. relay station, **539**
Pietzner, J., investigation of the interference field of e.m. waves by c.r. d.f., **2096**
Piggott, W. R., with E. V. Appleton, ionospheric absorption measurements, **3220**
Pike, W. S., with L. E. Flory, particle counting by television techniques, **1882**
—— with others, camera adapter for television receivers, **1198**
Piloty, R., Jr, design of Eccles-Jordan circuit, **1348**
Pimonow, L., modulation of ultrasonic standing waves, **1983**
—— with P. Chavasse, comparison of microphone calibrations using pure tones or noise, **301**
Pincherle, L., with D. P. Jenkins, variation principle for electronic wave functions in crystals, **2137**
—— with others, photoeffects in Ge, **748**; band structure of Si, **3584**
Pine, C., with others, absorption of mm waves in dielectric solids, **1840**
Pines, D., collective description of electron interactions, **1376**
—— and D. Bohm, collective description of electron interactions, **1021**
—— with D. Bohm, collective description of electron interactions, **1375**
—— with T. D. Lee, interaction of particle with scalar field, **1395**
Ping King Tien. See Tien, Ping King.
Pinkerton, J. M. M., and others, LEO, **3473**
Pinney, J. E., with others, brightness modification proposals for televising colour film, **1211**
Piper, W. W., electrical and optical properties of ZnS, **1096**
—— and W. L. Roth, perfect crystals of ZnS, **1097**
Pipes, L. A., matrix analysis of linear time-varying circuits, **1692**; applications of integral equations to circuit problems, **2596**
Pippard, A. B., anomalous skin effect in anisotropic metals, **3522**
Pistol'kors, A. A., theory of linear conductor near boundary of two media, **1040**; Mathieu functions in aerial-field computation, **3468**
Pittman, G. F., Jr, with L. A. Finzi, magnetic amplifier analysis, **372**
Place, H., with W. P. Maginnis, microwave system of Michigan-Wisconsin Pipeline Company, **2771**
Plebanski, J., with L. Infeld, electrodynamics without potentials, **2367**
Plessner, K. W., and K. A. Cook, anomalous temperature coefficient of permittivity in $BaTiO_3$, **2716**
Ploke, M., alkali photocells, **1608, 2261**
Plötze, E., K. Rawer and E. Stoebe, automatic radio equipment for weather data, **815**
Podolsky, L., components for severe conditions of use, **651**
—— and J. K. Sprague, capacitor and resistor components, **2585**
Podszeck, H. K., and A. Schmid, carrier-frequency communication equipment, **1569**
van der Poel, F. H. J., with J. J. P. Valeton, flying-spot scanner using MC13-16, **1217**
van der Poel, W. L., 'dead' programmes for magnetic-drum computer, **54**
Pohl, P., and H. Wolcott, audio sweep generator, **487**
Pohl, R. G., cross-section of pulled crystals, **2990**
Pohlit, W., with W. Lippert, properties of e.s. lenses, **1158, 3651**
Poincelot, P., application of negative feedback to electroacoustic devices, **617**; relations between pass band and signal build up, **664**; response to linearly varying input, of amplifier, **988**, of filter, **3166**; group velocity, **2370**; time constant of waveguide, **3127**
Poklekowski, G., with A. Lutz, voltage transformer for current measurement, **2471**
Pokrowsky, M., measurement of nonlinear distortion, **3624**
van der Pol, B., radio technology and theory of numbers, (**C**)**790**
Polacco, E., with A. Gozzini, dielectric constant of gases at u.h.f., **1133, 1134**
Polanyi, T. G., mass spectrometry in electronics industry, **3075**
Polder, D., theory of Brownian motion in nonlinear systems, **2028**
Poledna, V., representation of f.m. oscillation using Bessel functions, **1903**
Polishuk, B. D., high-Q coupled tuned circuits, **1335**
Polivanov, K. M., new effect caused by gyromagnetic phenomena, **2599**; theory of measurement of μ and ϵ of semiconducting ferromagnetics, **2724**; Fisher's gyromagnetic effect observed in body in waveguide, **2921**
Polk, M. L., with others, shapes of floating liquid zones, **1804**
Pollack, I., J. M. Pickett and W. H. Sumby, identification by voice, **2839**
Pollaczek, F., stochastic theory of electronic counters, **1878**
Pollard, B. W., and K. Lonsdale, Manchester University computer, **979**
—— with others, digital computers at Manchester University, **978**
Pollard, J. R., selective calling for R/T systems, **848**
Pool, S. D., with others, design of super-directive aerial arrays, **19**
Popovic, V., indication and measurement of impedance by c.r.o., **2999**
Poppelbaum, W. J., measurement of e.m.f., **1131**
Portnoy, W. M., with others, self-diffusion in Ge, **2128**
Pöschl, K., wave propagation along helix with cylindrical outer conductor, **1617**
—— with W. Kleen, line attenuation and power gain of travelling-wave valve, **1615**
—— with J. Labus space-charge waves in plasma streams, **2807**
Post, E. J., and J. W. A. van der Scheer, frequency stability of crystal oscillator, **92**
Potier, G. X., pulse systems for simultaneous transmission of telephony, telegraphy and radio programmes, **3041**
Potok, M. H. N., reseach on mm-λ spark generators, **89**; valve codes, **908**
Potter, J. L., with E. P. Felch, magnettor current standard, **2718**
Powell, A., edge tones and associated phenomena, **924**
Power, A. D., with A. L. Smith, luminescence of systems, $\beta Zn_3(PO_4)_2$, $Cd_3(PO_4)_2$-Mn, **3235**
Power, B. A., with others, radar evidence of generating level for snow, **2405**
Prager, H. J., performance of 'special red' valves, **597**
Pramanik, S. K., and P. S. Hariharan, magnetic variations near magnetic equator, **1051**
Pratap, R., atmospheric oscillations and geomagnetic field variations, **3549**
—— with S. K. Chakrabarty, dynamo theory of geomagnetic variations, **2384**
Praxmarer, W., anode system for unstrapped magnetrons, **3725**; wavelength limit of rising-sun magnetron, **3726**
Pressey, D. C., measuring nonlinearity, **1139**
Preston, J., with others, uniaxial microphone, **957**
Preston, J. G., with F. G. Kear, vertical radiation patterns of television aerials, **1303**
Price, R. L., cascode as low-noise a.f. amplifier, **2612**
Price, W. L., with T. B. Tomlinson, theory of the flicker effect, **606**
Prim, R. C., and W. Shockley, joining solutions at the pinch-off point in field-effect transistor, **1950**
Primakoff, H., with others, statistical estimation in physics, **1370**
Prince, M. B., drift mobilities, in Ge, **1462**, in Si, **2421**
Pringle, D. H., and E. J. Whitmore, gas-discharge tubes, for microwave attenuation, **918**
Priporova, G. P., with N. M. Genkin, transverse thermomagnetic effect, **2928**
Pritchard, D. H., and R. N. Rhodes, colour-television demodulators, **1593**
Pritchard, R. L., directivity, of linear arrays, **936, 937**, of spherical microphones, **1286**; frequency variations of junction-transistor parameters, **2537**
Procter, W. S., M. J. L. Pulling and F. Williams, technical arrangements for the Coronation broadcasts, **2231**
Prokhorov, A. M., and A. I. Barchukov, measurement of absorption coefficients by microwave spectroscopy, **3540**
Prokott, E., method for estimating u.s.w. propagation, **1892**
Prösdorf, D., with A. Esau, determination of material constants for small samples, **3291**
Pujolle, J., and R. Lamoral, sound insulation with light-weight structures, **2842**
Pulling, M. J. L., American television scene, **869**
—— with others, technical arrangements for the Coronation broadcasts, **2231**
Pulsford, E. W., count-rate meter, **3318**
Purkis, H. J., with others, acoustics of Royal Festival Hall, **312**
Pursey, H., set of 0·4-octave band-pass filters, **998**
Pusch, G., with A. Egger, disk-seal-triode amplifiers, **690**
Putnam, C. R., sufficient condition for infinite discrete spectrum, **2160**; gaps in spectrum of Hill equation, **2161**
Putseiko, E. K., and A. N. Terenin, sensitization of internal photoeffect by chlorophyll, **1779**
Pyett, J. S., acoustic impedance of porous layer, **1650**
Pynn, R. D., microwave site selection in undeveloped country, **2771**

Quarmby, R. B., electronic analogue computing, **1311**
Quate, C. F., with others, beam focusing with periodic permanent magnets, **2546**
Quenstedt, R. E., conelrad receiver with built-in alarm, **1170**
Querzoli, R., with G. Cortellessa, optical system for transmission of information, **2481**
Quietzsch, G., loudness level and loudness sensation, **1653**
Quirk, C., with B. Amos, correlation of picture quality between field and laboratory signals, **3010**

Raasch, F., progressive code digital quantizer, **2576**
Rabinow, J., and M. Apstein, distributed transducer for ultrasonic power, **3012**
Rabotnick, S., with others, single-core magnetic amplifier analysis, (**A**)**2900**
Rado, J. A., and W. L. Hughes, quantitative spectral measurements in colour television, **1202**
Rae, J. R., transmission of colour over inter-city television networks, **1194**
Raes, A. C., and G. G. Sacerdote, acoustics of two Roman basilicas, **951**
Raether, H., with K. Kerner, electron emission from cold metal surfaces, **3193**
Ragazzini, J. R., and L. A. Zadeh, analysis of sampled-data systems, **1189**
Rajchman, J. A., myriabit magnetic-core matrix memory, **59**
Rakhovich, L. M., with N. B. Gornyi, circuit for determining energy distribution of secondary electrons, **3527**
Ramanathan, K. R., and B. V. R. Murthy, daily variation of ozone in atmosphere, **723**
Ramdas, A. K., infrared absorption spectrum of SiC, **754**
Ramey, R. A., magnetic-amplifier circuits and applications, **691**
Randall-Cook, C., racon beacon for civil marine radars, **2949**
Rangarajan, S., sporadic-E layer at Kodaikanal, **3212**
Ranger, R. H., synchronized magnetic-tape recording, **2561**
Rank, D. H., H. E. Bennett and D. C. Cronemeyer, refractive index of Ge measured by interference method, **2131**
—— J. N. Shearer and T. A. Wiggins, velocity of light derived on band-spectrum method, **2619**
Rantzen, H. B., F. A. Peachey and C. Gunn-Russell, automatic monitoring of broadcast programmes, (**D**)**857**
Ranzi, I., ionosphere during solar eclipse at Buenos Aires, **136**

Rao, B. R., and E. B. Rao, travelling disturbances in ionosphere, **725**
Rao, E. B., with B. R. Rao, travelling disturbances in ionosphere, **725**
Rao, V. N., spectrum of modulated pulses, **249**
Raoult, G., and A. Marcon, elliptically-polarized-vibration analyser for circular waveguide, **1500**
Rapoport, G. N., waveguides with diaphragms, **3128**
Rappaport, P., electron-voltaic effect in *p-n* junctions induced by β particles, **1799;** processing Ag-Mg secondary emitters, **2823**
—— and E. G. Linder, radioactive charging effects with dielectric, **859**
Ratcliffe, J. A., analysis of fading records from spaced receivers, **3216**
Ratcliffe, P. M., microwave measuring equipment, **2727**
Ratcliffe, S., automatic tuning for primary radar, **2679**
Rateau, J., with others, integrator and differentiator circuits in acoustics technique, **3437**
Rath, H. L., capacitance measurements on alloyed Ge-In rectifiers, **3069**
Rathenau, G. W., imperfections in matter, **1491**
Ratz, A. G., with R. F. Johnston, graphical method for flip-flop design, **2589**
Rau, K. L., new thyratrons for telephone circuits, **1628**
Rau, R. S. N., with G. K. M. Pfestorf, ions and barriers in electric discharges, **1379**
Raudorf, W., with others, wide-band high-power r.f. transformer for Birmingham synchrotron, **69**
Rawer, K., Die Ionosphäre, **(B)421;** effect of magnetic equator on E_s layer, **731**
—— and É. Argence, E region, formation of, **1057,** origin of, **2667**
—— with others, automatic radio equipment for weather data, **815**
Rawson, H., reduction in loss factor of ceramics by heat treatment, **2451**
Rayburn, C. C., with R. L. Henry, mechanized production of electronic equipment, **693**
Rayner, G. H., and L. H. Ford, performance of dried and sealed mica capacitors, **2022**
Rayner, M. E., boundary-value problems in potential theory, **1731**
Read, C. W. M., improvement to communications receiver BRT400, **516**
Read, R. S., and I. Mills, nomogram for design of resistance windings, **2326**
Read, W. T., with others, spin resonance of donors in Si, **3254;** recombination at lineage boundaries in Ge, **3259**
Read, W. T., Jr, with others, dislocations in plastically deformed Ge, **2124**
Reaves, J. H., bias supplies for direct-coupled circuits, **3362**
Reber, G., spread F over Hawaii, **3213**
Reddeck, J. G., narrow-band transmission of N.T.S.C. colour signal, **1199**
—— and H. C. Gronberg, colour-television converter for cable networks, **536**
Redfield, A. G., electronic Hall effect, in alkali halides, **2686,** in diamond, **2687**
Redhead, P. A., and L. R. McNarry, ionization manometer for extremely low pressures, **2955**
Rediker, R. H., with others, phase-bistable transistor circuit, **(C)659**
Reed, I. S., with others, phase-bistable transistor circuit, **(C)659**
Reed, J. M., series capacitors multiply battery voltage, **3045**
Reed, O. W. B., Jr, television service standards and design of broadcasting networks, **2785**
Reese, R. F., with J. T. Bolljahn, electrically small aerials and the aircraft-aerial problem, **1680**
Reeves, A. H., 'positive-gap' Ge diode, **2257**
Reeves, M. L., with R. Geballe, breakdown in electron-attaching gases, **1380**
Reich, H. J., admittance diagrams in oscillator analysis, **(D)1344**
Reiche, F., with A. Kolin, e.m. velometry, **2734**
Reiland, G. W., with others, Ge power transistors, **3391**
Reincke, W., magnetization of very thin Fe films, **2709**
Reingold, I., and K. Garoff, measurements of gas temperature of low-pressure r.f. discharge, **3423**
Reinov, N. M., with A. P. Komar, temperature dependence of magnetization of Ni-Zn ferrites, **1488**
—— with others, photomagnetic effect in Cu_2O, **3232**
Reiskind, H. I., design of records and reproducers, **12**
Remington, R. W., with others, fabrication of printed circuits, **2906**
Renaudin, D., measurement of radio interference from h.v. lines, **471**
Rennick, J. L., and C. H. Heuer, four-gun tube for colour television, **559**
Reslock, A. M., with J. J. Hupert, band-pass amplifier alignment, **481**
Reswick, J. B., scale factors for analogue computers, **2318**
Rettinger, M., with K. Singer, correction of frequency-response for magnetic-head wear, **10;** multiple-track magnetic heads, **1280**
Reynolds, J. M., H. W. Hemstreet and T. E. Leinhardt, resistance of graphite at low temperatures, **1078**
Reynolds, L. G., with H. G. Hopkins, short-distance propagation at l.f., **1551**
Reynolds, W. N., surface recombination in Ge, **1085**
Reza, F. M., *RLC* canonic forms, **2330**
—— and P. M. Lewis II, transfer voltage ratio of *RLC* networks, **3490**
Rhead, K. J., United Air Lines v.h.f. network developments, **1182**
Rhodes, D. R., minimum range for radiation patterns, **3459**
Rhodes, H. A., Transco microwave system, **2771**
Rhodes, P., with others, effects of band shape on magnetic properties, **2140**
Rhodes, R. N., with D. H. Pritchard, colour-television demodulators, **1593**
Riblet, H. J., and R. L. Williston, X-band rotary joint, **629**
Rice, S. O., diffraction of plane radio waves by parabolic cylinder, **2197**
Richards, R. C., with N. J. Beane, flexure-mode quartz oscillators, **354**
Richman, D., colour-carrier synchronization accuracy in N.T.S.C. colour television, **1199;** d.c. quadricorrelator, **1224**
Richter, H., W. Kulcke and H. Specht, structure of amorphous Se, **1077**
Riddiford, L., with others, wide-band high-power r.f. transformer for Birmingham synchrotron, **69**
Riddle, R. L., practical two-stage transistor amplifiers, **2058**
—— and C. R. Ammerman, fading of 100-Mc/s f.m. signals, **2754**
Ridenour, L. N., and G. W. Brown, subscription television, **1197**
—— with others, photographic techniques for information storage, **66**
Ridout, M. S., with E. Billig, transmission of electrons and holes across a twin boundary in Ge, **2431**
Riedel, A., stabilizer for alternating voltages, **1584**
Riess, I., with F. Steiner, a.f. negative-feedback amplifier as filter, **1719**
Riéty, P., with P. Chavasse, standard test gear developed by Acoustics department of C.N.E.T., **2835**
Rigrod, W. W., and J. A. Lewis, wave propagation along magnetically focused beam, **1964**
Rimondi, O., with others, amplifier with low dissipation and short rise time, **3507**
Rigenbach, M. E., with R. K. Thomas, vertically polarized microwave aerial, **973**
Risco, M., vector modifications for waves in dielectric medium, **1742**
Ritcey, J. W., with H. E. Stumman, premium twin triode, **1974**
Ritchie, D. K., optimum d.c. design of flip-flops, **348**
Ritchie, R. H., with G. S. Hurst, energy resolution with proportional counters, **500**
Ritson, F. J. U., and P. H. Hammond, electronic simulator for hydraulic servomechanism, **(D)981**
Rittner, E. S., chemistry of the oxide cathode, **592;** extension of theory of junction transistor, **3390**
Robb, J. D., with others, protection of aircraft aerials from discharges, **1586**
Robbins, R. L., measurement of path loss at 3·675 kMc/s, **511**
Roberts, E. A. O'D., properties of materials affecting valve reliability, **3397**
Roberts, F., series heater strings for television receivers, **3374**
Roberts, F. W., and R. C. Curtis, audio a.v.c. systems, **1724**
Roberts, J. A., with others, radio evidence of ejection of fast particles from sun, **2377**
Roberts, T. E., Jr, experimental investigation of single-wire transmission line, **2849**
Robertson, D. S., D. T. Liddy and W. G. Elford, measurements of winds in upper atmosphere, **1424**
—— with W. G. Elford, measurements of winds in upper atmosphere, **1425**
Robertson, J. E., with D. J. Wheeler, diagnostic programmes for the ILLIAC, **34**
Robin, L., and A. Pereira-Gomes, symmetrical biconical aerial with arbitrary cone angle, **1679**
Robinson, B. J., with K. Landecker, study of h.f. fluctuations from light sources using photocells, **697**
—— with others, observations of 21-cm line from Magellanic clouds, **3544**
Robinson, C. V., radio in the service of the seaman, **1919**
Robinson, D. W., relation between sone and phon scales, **1276**
Robinson, F. N. H., noise factor of travelling-wave valves and klystrons, **1618**
Rockett, F., capacitor miniaturization, **2871;** design trends, in variable capacitors, **3154,** in fixed resistors, **3479**
Roddam, T., 'chameleon' oscillator, **1001**
Rodionov, S. F., with A. L. Osherovich, glow of night sky at 1–3μ λ, **3558**
Roehrig, J. R., with C. B. Sibley, wide-range vacuum gauge, **428**
Roessler, E., m-, dm- and cm-waves far beyond the horizon, **1891**
Rogers, T. F., with others, fused-quartz delay line, **666**
Rogers, W. A., R. S. Buritz and D. Alpert, diffusion of He in glass, **3564**
Roginskaya, N., with others, thermoelectric generator TGK-3, **2514**
Rogozinski, A., with E. Picard, measurement of dead time of G-M counter, **228**
—— with others, photomultiplier background noise, **1958**
Rohan, P., permeability tuning for short waves, **2758**
Rohde, F., measurement of luminescence decay time, **1504**
Rohner, E., with others, m.f. interference from fluorescent lamps, **243**
Rohrbaugh, J. H., with others, absorption of mm waves in dielectric solids, **1840**
Roig, J., with others, photodianode, **1249, 2544**
Roka, E. G., R. E. Buck and G. W. Reiland, Ge power transistors, **3391**
Rollin, B. V., and I. M. Templeton, noise in Ge filaments at v.l.f., **2705**
—— with J. Hatton, electrical properties of InSb at low temperatures, **2981**
Rollin, R., quartz crystal testing, **2175**
Rollwagen, W., and C. Schwink, electron-optical schlieren arrangements, **1536**
Romand, J., with others, measurement of temperature of conductor based on noise, **2480**
Romeijn, F. C., properties of spinels, **461**
Romell, D., with H. Alfvén, strophotron valve, **3398**
van Roosbroeck, W., and W. Shockley, photon-radiative recombination in Ge, **3258**
Roose, J. F., with P. A. C. Mortier, velocity of discharge propagation in G-M counters, **2194**
Rösch, H., electric field of conductor parallel to intersecting planes, **3189**
Röschlau, H., television transmission, outside-broadcast dm-λ equipment, **537,** pulse technique in circuit testing, **1868**
Rose, A., with A. D. Cope, X-ray noise observation using a photoconductive pickup tube, **2240**
Rose, F., with A. Hoffmann, CdSe intermediate layers in Se rectifiers, **1819**
Rose, F. W. G., and E. W. Timmins, estimating impurities in Ge, **1464**
Rosen, A., irregular transmission lines, **1295,** short, steady-state characteristics of, **1668**

von Rosenberg, C. E., with others, statistical survey of atmospheric refractive-index variation, **1759**
Rosenblum, E. S., with others, directional properties of cyclotron resonance in Ge, **2423**
Rosenblum, S., U.S.S.R. research on magnetism, **1736**
Rosenman, L., microphone sensitivity conversion, **314**
Rosenstock, H. B., response of pulsed Geiger tube, **2491**
Ross, H. D., Jr, arithmetic element of IBM Type-701 computer, **30**
Rost, R., Kristalloden-Technik, (**B**)**3425**
Rote, W. A., magnetic-converter d.c. amplifier, **688**
Roth, R. S., with others, piezoelectric properties of $PbZrO_3$-$PbTiO_3$ solid solutions, **3247**
Roth, W. L., with W. W. Piper, perfect crystals of ZnS, **1097**
Rothe, H., equivalent noise conductance of amplifier valves, **3414**
Rotondi, L., with S. Mayburg, thermal acceptors in vacuum-heat-treated Ge, **755**
Rotow, A. A., with others, image orthicons for colour cameras, **1216**
Rottgardt, K. H. J., production of X rays by television c.r. tubes, **2246**; skiatrons, **3419**; destruction of luminescence of c.r.-tube screens, **3420**
Rouch, J., electric field of atmosphere during eclipse, **3559**
Rough, J. D., with others, determination of $\hbar/e$ by new method, **2640**
Rousell, S. M. E., E. B. M. Beaumont and B. H. Moore, provision of communications for Coronation of Her Majesty Queen Elizabeth II, **251**
Roux, J., propagation tests in the Mediterranean, **1893**; dielectric loss change, **2692**
Row, R. V., microwave diffraction measurements in parallel-plate region, **1744**
Rowe, W. C., with others, evidence of harmonics in spectrum of solar radio outburst, **391**
Rowe, W. E., with others, C.B.S. colortron, **1228**
Rowen, J. H., ferrites in microwave applications, **995**
Roy, R., and J. K. D. Verma, irregularities in ionosphere, **1761**
Roy, S. K., with D. K. C. MacDonald, thermoelectric power of monovalent metals, **1479**
Roys, H. E., distortion in phonograph reproduction, **313, 476**
Rozenberg, L. D., ultrasonic concentrator, **2283, 2284**
Rozenblat, M. A., demagnetization coefficients of high-μ cores, **3152**
Rubin, L. G., with L. Davis, Jr, dielectric properties of $(BaSr)TiO_3$, **783**
Rubinoff, M., comparison of analogue and digital computers, **27**
—— with others, design of or-and-or pyramids, **40**; analogue-to-digital converter, **47**
Rücklin, R., calculation of composite h.f. filters, **84, (C)1337**
Rudd, J. B., 'codan' for a.m. receivers, **524**
Ruddick, J. J., with others, photoemission of W in region of predicted Schottky deviations, **155**
Rudisuhle, E. J., with others, compandors in f.m. radio systems with frequency division multiplexing, **2771**
Rudnick, P., with others, viewing storage tube with half-tone display, **1975**
Rüegg, W., radio interference from fluorescent lamps, **841**
Ruetz, J. A., with R. W. Peter, influence of secondary electrons in travelling-wave valves, **581**
—— with others, space-charge-wave amplification along electron beam, **2811**
Rulon, R. M., with others, electroluminescent ZnS phosphors, **1786**
Rumble, D. H., with C. W. McLeish, stroboscopic frequency meter, **1863**
Rumpel, F., differential feedback suppressor, **1912**
—— with H. Härtl, delay networks for time selection in multichannel systems, **2509**
Rumsey, V. H., travelling-wave slot aerials, **1307**; reaction concept in e.m. theory, **3199**
—— with others, travelling-wave slot aerials, **334**; design of arrays, **3135**
Rumyantsev, A. P., with A. R. Shul'man, thermionic emission from ThO_2 and Th, **1619**
Russek, J., with B. Friedman, addition theorems for spherical waves, **3281**
Russell, G. H., two-band television receivers, **1938**; band-III converter, **2242**; television i.f. enquiry, **2787**; combination f.m./a.m. receivers, **3346**
Russell, R. L., and N. W. Hodges, application of counter-rotating fields to measuring devices, **2469**
Rust, H. H., dielectric behaviour of Se barrier layers, **1490**
—— and H. Drubba, underwater spark as sound-pulse generator for echo sounding, **223**
—— with H. Drubba, underwater spark as sound-pulse generator, **490**; acoustic sea-depth measurements, **1430**
Ruze, J., with J.E. Martin, cosecant aerial aids u.h.f. television coverage, **2566**
Rvachev, A. L., with A. I. Andrievski, Cu_2O photocells prepared in h.f. field, **1613**
Ryan, A. H., and S. D. Summers, microwaves used to observe commutator surfaces, **2736**
Ryan, R. D., Hg delay line memory unit, **2578**; modified Miller time-base, **2607**
Ryan, W. E., with R. C. Ellenwood, u.h.f. matching termination, (**D**)**1510**
Rydbeck, O. E. H., excitation of space-charge waves in travelling-wave valves, **583**
—— and B. Agdur, space-charge waves in periodic structures, **3723**
Ryder, R. M., and W. R. Sittner, transistor reliability studies, **1604**
Ryshkov, S. S., modes of operation of oscillator, **3500**
Ryvkin, S. M., B. M. Konovalenko and Yu. S. Smetannikova, induced conductivity of CdS, **3592**
Saad, T. S., doubly compensated cavity, **668**
Sabine, H. J., room acoustics, **950**
Sacasa, R. Gea. See Gea Sacasa, R.
Sacco, L., statistical distribution of field strength of radio signals, **3020**
Sacerdote, G. G., with C. Bordone, power and efficiency of passive quadripoles, **81**
—— with M. A. Ferrero, acoustic impedance measurement, **2553**
—— with A. C. Raes, acoustics of two Roman basilicas, **951**
Sachtleben, L. T., with others, aperture-response testing of projection optical systems, **1594**
Sack, E. A., with others, resonant-dielectric-amplifier frequency response, (**A**)**2903**
Sadoun, B., long-distance propagation of metre waves, **509**
Sáenz, A. W., changes in properties of monovalent metals due to lattice distortions, **1074**
Saha, A. K., variation of E-region maximum with zenith distance of sun, **3211**
Sainsbury, F. W. J., new developments in h.f. receivers, **3035**
St. Johnston, A., and S. L. H. Clarke, applications of electronic computer to business accounting, **3140**
Saito, N., with others, design of v.h.f. band-pass filter, **1715**
Sakamoto, N., T. Asahi and S. Miyahara, magnetization of Mg ferrite, **1108**
Sakata, T., Cs_3Sb photocathode, **1472**, Hall effect in, **1473**
Saker, E. W., and F. A. Cunnell, intermetallic semiconductors, **2412**
—— with Y. Klinger, dielectric constant of amorphous Se, **1790**
—— with others, semiconducting compound InSb, **1816**
Sakiotis, N. G., with others, nonreciprocal microwave component, **2040**
Salikhov, S. G., resonance absorption in metals at cm λ, **1833**
—— with others, paramagnetic resonance absorption in metals, **186**
Salkovitz, E. I., with P. L. Smith, plastic deformation of ADP, **2149**
Salmon, J., effect of electron energy distribution on average secondary-emission yield, **2632**
Salmon, V., loudspeaker impedance, **959**
Salpeter, J. L., sintered magnetic materials, **178, 1823**; optical aspects of aerials, **630**, in relation to slot aerial, **635**
Salter, J. P., measuring small voltage changes, **3292**
Salvini, G., synchrotron with double vacuum chamber, **3325**
Salzer, H. E., radix table for hyperbolic functions, **793**; Tables of Coefficients for the Numerical Calculation of Laplace Transforms, (**B**)**2458**; new formulae for osculatory interpolation, **2993**
Salzer, J. M., frequency analysis of digital computers, **1317**
Samal, E., moving-coil compensator for small direct voltages, **1512**
Samuel, A. L., digital computers made easy, **22**
Sander, K. F., and J. G. Yates, mapping electric fields in electrolyte tank, (**D**)**1146**
Sands, M., and B. Touschek, alignment errors in strong-focusing synchrotron, **1531**
Sann, K., with H. Awender, classification of quartz-crystal oscillator circuits, **2892**
Sanyal, G. S., radiation from waveguide with inclined open end, **3138**
—— and J. S. Chatterjee, measurement of permeability at microwave frequencies, **2467**
Sargent, C. J., with T. N. Gautier, Jr, likelihood of interference at 30–42 Mc/s in Alaska, **2204**
Sargrove, J. A., optical transducers, **3640**
Sartori, R., distribution of current in aerials, **1302**
Sasaki, W., and M. Kuno, effective mass of conduction electron in Ge, **1461**
Sasson, G., profile of pole pieces of strong-focusing cosmotron, **1873**
Sato, A., and Y. Ishii, measuring vacuum factor of valves, **3719**
—— with others, effects of crystal size and shape on oxide-coated cathodes, **2265**
Sato, G., with others, 4-terminal-network theory for multi-element array, **1682**
Sato, H., S. Kato and T. Shibayama, cores of broad-band transformer insulated by cataphoresis, **3612**
Sato, R., with others, 4-terminal-network theory for multi-element array, **1682**; design of v.h.f. band-pass filter, **1715**
Sato, T., reflection coefficient for long waves, **404**
Saumont, R., with R. Husson, acoustic structure of speech sounds, **944**
Saunders, R. L., with others, telegraph codes and code converters, **2507**
Sauter, F., with W. Oldekop, theory of work function of metals, **2073**
Savage, F. M., electronic stroboscopes, **1881**
Savant, C. J., Jr, and R. C. Howard, multiplier for analogue computers, **3476**
Savet, P. H., analogue computing by heat transfer, **2003**
Saville, D. P., with A. Cunliffe, measurement of waveguide impedance, **2172**
Savinov, G. V., oscillation in nonlinear systems, **467**
Savinski, K. A., gas concentration in vapour vacuum pump, **3565**
Sawaguchi, E., ferroelectricity *v.* antiferroelectricity in solid solutions $PbZrO_3$ and $PbTiO_3$, **1121**
Sawazaki, N., with others, microwave relay for Japanese television, **2783**
Saxon, D. S., with E. Gerjuoy, variational principles for acoustic field, **3105**
Saxon, G., with C. W. Miller, anomalous attenuation in linear accelerator, **497**
Saxton, J. A., television coverage, **1928**; radio meteorology conference in Texas, **2751**; ground-wave propagation characteristics in band 50–800 Mc/s, (**A**)**2492, 3338**
—— and B. N. Harden, ground-wave field-strength surveys at 100 and 600 Mc/s, (**A**)**2492, 3339**
Sayasov, Yu. S., reduction of oscillations in cylinders due to departures from cylindricity, **1330**

Sayer, W. H., u.h.f. transmitter using klystron, **3056**
Sayers, C. F., with J. E. Thwaites, production of thin quartz plates, **788**
Sbitnikova, I. S., with others, electron-optical method of imaging objects with magnetic inhomogeneities, **2739**
Scanlon, W. W., Hall effect and resistivity in PbS and related semiconductors, **1818**
—— with A. E. Middleton, thermoelectric power of Ge, **1091**
Scarborough, A. D., analogue-to-digital converter, **645**
Schachenmeier, R., diffraction of e.m. waves near earth's surface, (C)**828**; increase of u.s.w. field strength due to tropospheric inversion, **833**; influence of troposphere on u.s.w. propagation, (C)**834**
Schade, O. H., image structure in television and motion-picture systems, **1232**, **1233**
Schadwinkel, G., and F. Naupert, electroacoustic equipment of Hamburg-Lokstedt television centre, **3706**
Schaeffer, N. M., and G. W. Wood, semiconductors as logarithmic elements, **2879**
Schaetti, N., developments in photomultipliers, **1610**; control of characteristic of Cs-Sb photocathode, **1611**
—— W. Baumgartner and C. Flury, dark current of electron multipliers with Cs-Sb photocathode, **2800**
Schafer, J. P., with others, low-loss ferrites for 4 kMc/s, **3607**
Schaffner, J. S., and J. J. Suran, transistors, amplifier, transient response of, **1326**, solution of diffusion equation for, **3713**
Schaffstein, G., with E. Klotz, post-war development of West German broadcast receivers, **1897**
Schagen, P., with others, television pickup tube for light and X rays, **1935**
Scharfman, H., and D. D. King, aerial scattering measurements by modulation of scatterer, **2310**
van der Scheer, J. W. A., with E. J. Post, frequency stability of crystal oscillator, **92**
Scheffels, W., M. Hahn and F. Lenz, measurement of caustic surfaces of electron lenses, **823**
Scheibe, A., pendulum, quartz and atomic clocks, **469**
Scheibe, E. H., B. G. King and D. L. Van Zeeland, loss measurements on surface-wave lines, **3121**
Schelisch, E., loci-curve theory applied to h.f. network, **355**
Schellmann, G., and K. Vogt, cross-modulation in field of high-power transmitters, **3384**
Scherenzel, H., with G. Strobel, interference suppression, **1559**
Schiele, J., Ge rectifiers for h.f. measurements, **1498**, **2166**
Schilberg, L. E., with R. L. Conger, noise discriminator for periodic signals, **2047**
Schilling, G. F., and P. Kreager, portable quadrant electrometer, **806**
Schimmel, N., harbour radar system for Rotterdam, **1435**
Schiske, P., with W. Glaser, wave-mechanics basis of electron optics, **499**; image distortion due to pole-piece asymmetry, **1157**
Schlesinger, K., television colour detectors use pulsed-envelope method, **2245**
—— with V. Graziano, electronic scanner for 16-mm colour film, **3058**
Schlüter, A., with I. Lucas, plasma theory of ionosphere, **2085**
Schmalbruch, H., figure of merit of broadcast receivers, **517**
Schmauch, H., and W. Bentz, measurement of sound velocities using ultrasonic-pulse equipment, **3109**
Schmelzer, C., operating conditions for electron cyclotron, **1528**
Schmid, A., with H. K. Podszeck, carrier-frequency communication equipment, **1569**
Schmid, G., and H. Knapp, ultrasonic transmission through porous bodies in liquids, **1641**
Schmid, K., with others, Cologne-Frankfurt-Neustadt television link, **538**
Schmidbauer, O., ferrites as core materials for magnetic heads, **2846**
Schmidt, F. H., and M. J. Jakobson, cyclotron oscillators and shifting inter-dee ground surface, **2190**
—— and others, University of Washington 60-in. cyclotron, **3323**
—— with M. J. Jakobson, proposed double-mode cyclotron, **1872**
Schmidt, K. O., bandwidth, etc. for various forms of communication, **1906**
Schmidt, O., radio-interference-suppression campaign in Iserlohn, **1901**
Schmidt, P., semiconductor properties of Cu_2O, **3593**
Schmidt, W., design of magnetic amplifiers, **99**; transductor with high-impedance control-winding termination, **1691**
Schmitt, H. G., with M. Brenner, gas-tube filament connections, **3424**
Schmutz, K., universal formulae for filters, **3495**
Schneider, H., with others, construction of v.h.f. transformer, **3478**
Schneider, P. J., numerical solutions for temperature fields in coils, **2587**
Schneiders, H., with others, construction of v.h.f. transformer, **3478**
Schnettler, F. J., with R. E. Alley, Jr, permeability relaxation of toroidal samples of ferrites, **1829**
—— with others, stressed ferrites having rectangular hysteresis loops, **2586**
Schnitger, H., measurement of nonuniformity of beam in travelling-wave valve, **582**
Scholes, D. H. C., radio teleprinter systems, **3035**
Scholes, W. E., with others, acoustics of Royal Festival Hall, **312**
Scholz, W., progress in radio-interference suppression, **523**
Schön, M., luminescence of carborundum crystals on passage of current, **2415**
Schönfelder, H., investigations on serrasoid modulator, **279**
Schonland, B. F. J., pilot streamer in lightning, **1062**
Schonstedt, E. O., and H. R. Irons, airborne magnetometer, **719**
Schott, O., with E. Fenner, possibilities and limitations of image intensification, **2482**
Schottky, W., hole conduction in crystalline Se, **2700**
Schreuer, W., speech clippers, **1237**
Schröder, M., normal-frequency statistics and excitation statistics for rooms, **3114**
Schroeder, A. C., with R. D. Kell, optimum use of channel for colour television, **542**
Schröter, F., rational development of television, **3051**
Schubart, G., with G. Blankenburg, temperature dependence of conductivity of Cu_2O, **437**
Schulte, H. F., with others, rocket instrumentation for upper-atmosphere temperature determination, **2933**
Schultz, H., with E. Justi, superconductivity of PbS impurity semiconductors, **1458**
Schulz, A., with W. Kluge, reversible secondary-emission fatigue effect in glow cathodes comprising a semiconducting layer, **2919**
Schulze, A., and D. Bender, behaviour of Au-Cr standard resistors under load, **2719**
Schumann, W. O., propagation of long waves, harmonic fields in, **1544**, and atmospherics, **1545**, higher-order modes in, **2195**
—— and H. König, observation of atmospherics at very low frequencies, **2948**
Schütz, E. W., Swiss work in electron microscopy, **2740**
Schwan, H. P., and Kam Li, capacitance and conductivity of body tissues at u.h.f., **813**
Schwarz, R. F., and J. F. Walsh, surface-barrier transistors, **895**
Schwarz, R. J., with K. S. Miller, interference of pulse trains, **238**
Schwertz, F. A., and J. J. Mazenko, nonlinear semiconductor resistors, **173**
Schwetzoff, V., photoemissive receivers for far ultraviolet, **1956**
Schwink, C., with W. Rollwagen, electron-optical schlieren arrangements, **1536**
Scorgie, D. G., fast response of magnetic amplifiers, (A)**1364**
Scott, D., Commonwealth radio communication services, **3035**
Scott, H. J., hyperbolic transmission line as matching section, **327**
Scott, J. C. W., distribution of F_2-region ionization at high latitudes, **134**; wave polarization in ionosphere, **1886**
Scott, R. E., and R. L. Blanchard, iterative method for network synthesis, **1703**
Scroggie, M. G., valve megohmmeter, **214**; electronic test meter, **3005**
Seal, P. M., network response to periodic waves, **2873**
Seaman, M. S., with F. A. Benson, characteristics of diode Type 29C1, **595**
—— with others, variations of triode characteristics with heater voltage, **598**
Seddon, J. C., measurements in ionosphere with rockets, **403**
Seelemann, F., Funk-Entstörung, (B)**2211**
Seguin, P., with others, semiconductor complexes forming nonlinear resistors, **434**
Seiden, J., orbital instabilities in cosmotron, **1532**, **2484**
Seiler, K., with others, solubility of impurities in Ge single crystals, **1463**
Seitz, F., color centers in alkali halide crystals, **2989**
Selby, M. C., accurate r.f. microvoltages, **2728**
—— E. C. Wolzien and R. M. Jickling, coaxial connectors and their electrical quality, **2460**
Selgin, P. J., and B. K. Hawes, temperature prediction in electronic design, **291**
Selove, W., d.c. comparison radiometer, **2205**
Seman, O. I., relativistic aberration functions in electron optics, **3649**
Sen, H. K., space-charge-wave amplification in shock front, **2644**
Senitzky, I. R., interaction between classical electron and quantized field, **991**
Septier, A., measurement of field in resonant cavity, **1853**; slotted electron lens for analysing velocities, **3654**
Seraphin, B., photoconductivity of CdS single crystals, **1478**
Serrell, R., elements of Boolean algebra, **57**, (C)**1318**
Serson, H. V., with others, m.u.f.s for path Washington–Resolute Bay, **1889**
Servranckx, R., solution of differential equations by resistance network, **3143**
Sethumadhavan, K., with A. K. Das, eruptive prominence and associated radio noise burst, **393**
Seur, C. J., television camera with image iconoscope, **875**
Severiens, J. C., and C. S. Fuller, mobility of impurity ions in Ge and Si, **1802**
—— with others, effect of Ni and Cu on recombination in Ge, **2429**
Severin, H., surface resistors for cm-λ technique, **3480**
—— with others, anechoic chamber for sound and short e.m. waves, **942**
Sevick, J., with J. E. Storer, plane-wave scattering from finite conducting obstacles, **2312**
Sewell, J. R., with P. H. Dowling, effects of organic vapour on secondary emission of phosphors, **2111**
Shah, J. R., with L. Jacob, trajectories in symmetrical electron lens, **1159**
Shain, C. A., comparison of cosmic noise at 18·3 Mc/s and 100 Mc/s, **2655**
—— and C. S. Higgins, background and discrete sources of 18·3-Mc/s cosmic noise, **2656**
—— with A. P. Mitra, ionospheric absorption measurements using observations of 18·3-Mc/s cosmic radio noise, **1426**
Shalimova, K. V., optical absorption and internal photoeffect of ZnO, **3568**
Shalyt, S. S., with others, photomagnetic effect in Cu_2O, **3232**
Shannon, C. E., computers and automata, **24**
—— and E. F. Moore, machine aid for switching-circuit design, **60**
Sharpe, C. B., general Tchebycheff rational function, **1340**
Shaull, J. M., and J. H. Shoaf, quartz-resonator frequency standards, **3288**
Shaw, E. A. G., measurement of acoustic impedance, **302**, on porous surfaces, **303**

Shaw, G. S., and J. L. Jenkins, nonlinear capacitors for dielectric amplifiers, **100**
Shea, R. F., Principles of Transistor Circuits, (**B**)**1016**; transistor application fundamentals, **2902**
Shearer, J. N., with others, velocity of light derived on band-spectrum method, **2619**
Sheingold, L. S., and J. E. Storer, circumferential gap in circular waveguide, **2854**
—— with T. Morita, coaxial magic-T, **1694**
—— with others, graphical analysis of two-port waveguide junction, (**D**)**3456**
Sheinkman, M. K., with others, photoresistivity of CdS single crystals, **1118**
Shekel, J., voltage-reference node, **665**; matrix analysis of multiterminal transducers, **2333**; two network theorems, **2878**; reciprocity relations in active 3-terminal elements, **3159**
Shelby, R. E., with others, N.T.S.C. colour television field test, **1199**
Shepherd, A. A., with W. Grattidge, negative-ion emission from oxide-coated cathodes, **2816**
Sherertz, P. C., circuits of NAREC computer, **33**
Sherr, S., equations for *RC* phase-shift oscillators, **2890**
Sherrard, E. S., stabilization of servomechanism subject to large amplitude oscillation, **1187**
Sherry, N. P. R., with L. F. Bates, thermal effects in magnetization of ferroxcube IV, **177**
Sherwood, R. C., with others, stressed ferrites having rectangular hysteresis loops, **2586**
Shibayama, T., with others, cores of broad-band transformer insulated by cataphoresis, **3612**
Shibuya, Y., electrical resistivity of Cu-Ni alloys, **3575**
Shidlovski, M. K., conductivity of amorphous Se in strong fields, **3583**
Shimoda, K., atomic clocks and frequency standard, **3287**
Shindo, T., oxide-cathode layer, space-charge effect in, **591**, transient phenomenon in, **3094**
Shinn, D. H., vertical distribution of electron density in ionosphere, (**D**)**411**; analysis of ionospheric records, **1414**
—— and T. C. Cheston, tolerances in parameters of microwave lenses, **2000**
—— and D. W. Watson, octantal error in phase-to-amplitude conversion circuit, **146**
Shipley, D. W., with others, focal lengths of unipotential lenses, **825**
Shirane, G., and R. Pepinsky, phase transitions in antiferroelectric $PbHfO_3$, **782**; dielectric properties of Cd and Pb niobates, **1072**
—— and others, phase transitions in ferroelectric $KNbO_3$, **2115**
Shirokov, M. F., striae in gas discharge, **3525**
Shive, J. N., with A. Slocum, shot dependence of *p-n* junction photransistor noise, **2544**
Shive, S., filter insertion loss in 10–1000-Mc/s range, **475**
Shklovski, I. S., supernovae as sources of radio emission, **2083**
Shoaf, J. H., with J. M. Shaull, quartz-resonator frequency standards, **3288**
Shockley, W., effects of temperature gradients on diffusion in crystals, **1122**, (**D**)**1837**; negative resistance in semiconductor diodes, **3388**; transistor physics and analogue transistors, **3600**
—— and W. P. Mason, dissected amplifiers using negative resistance, **2901**
—— with R. C. Prim, joining solutions at the pinch-off point in field-effect transistor, **1950**
—— with W. van Roosbroeck, photon-radiative recombination in Ge, **3258**
—— with others, electronic polarizabilities of ions in crystals, **1394**
Shoemaker, F. C., with others, measurement of two-dimensional magnetic fields, **3297**
Short, J., with M. J. Ehrlich, mutual coupling in linear-slot array design, **2572**
Shrader, R. E., and S. F. Kaisel, excitation of ZnO phosphors by low-energy electrons, **2114**
—— with others, poisoning mechanism in ZnS:Mn phosphors, **1782**
Shtein, V. K., collector characteristics of palletron, **3647**
Shtromberg, R., with M. Likhachev, large television screen, **3373**
Shuey, R. L., information theory, **845**
Shull, F. B., C. E. MacFarland and M. M. Bretscher, concentration of cyclotron beam of strong-focusing lenses, **3320**
Shulman, R. G., and M. E. McMahon, recovery currents in Ge *p-n*-junction diodes, **1238**
Shul'man, A. R., and E. I. Myakinin, secondary emission of Ni and Mo, **2362**
—— and A. P. Rumyanstev, thermionic emission from ThO_2 and Th, **1619**
—— and I. D. Yaroshetski, secondary emission from thoria, **3529**
Shultz, G. L., low-input-capacitance probe, **1514**
Shur, Ya. S., and D. D. Mishin, effect of elastic tension on susceptibility, **445**
—— with V. A. Zaikova, dependence of coercivity on thickness of laminations, **2444**
—— with T. D. Zotov, magnetoresistance of single crystals of transformer steel, **174**
Sibley, C. B., and J. R. Roehrig, wide-range vacuum gauge, **428**
Sichak, W., coaxial line with helical inner conductor, **3123**
—— and J. J. Nail, u.h.f. omnidirectional aerial systems for large aircraft, **2568**
—— with A. G. Kandoian, wide-frequency-range helical aerials, **1304**, (**C**)**2315**
—— with D. J. LeVine, dual-mode horn feed for microwave multiplexing, **3467**
Sicinski, H. S., with others, rocket instrumentation for upper-atmosphere temperature determination, **2933**
Sido, P., with others, steep-fronted-wave generators, **1004**
Sidorowicz, R. S., with Z. Jelonek, band-pass amplifiers, **1720**
Siedentopf, H., observations of cosmic radio-noise sources, **1407**
—— and G. Elwert, r.f. emission from cosmic-ray electrons, **1397**
Siegert, A. J. F., passage of stationary processes through linear and nonlinear devices, **3031**
Siegman, A. E., with D. A. Watkins, helix impedance measurements using electron beam, **1965**
Siekanowicz, W. W., medium-power travelling-wave valve for 200-Mc/s band, **3090**
Siksna, R., with H. Norinder, electrification of snow, **414**
Silberstein, R., frequency-sweep backscatter observations, **2495**, **3019**, at N.B.S., **1888**
Silcocks, A. H., l.f. band-pass filter, (**D**)**676**
Silleni, S., polyphase modulation in telecommunications, **843**
Silva, L. M., predictor servomechanisms, **2776**
Silverman, R. A., and M. Balser, coding for constant-data-rate systems, **3674**
Silverman, S. J., and H. Levinstein, electrical properties of single crystals and thin films of PbSe and PbTe, **2982**
Silverstein, A., dielectric amplifiers, **1368**
Sim, A. C., h.f. proximity-effect formula, **2323**
Simon, A., matching circuits for asymmetrical wire aerials, **2033**; coupling circuits for transmitters, **3383**
Simon, J. C., and G. Broussaud, detection of a radio wave by a ferrite, **2904**
—— and G. Weill, longitudinally radiating aerial, **20**; propagation of e.m. waves along dielectric line, **1308**
Simon, P., with J. F. Denisse, relation between yellow coronal line and geomagnetic activity, **2643**
—— with J. C. Pebay-Peyroula, direct-reading electronic correlator, **3144**
Simon, S. L., with F. D. Coffin, e.m.f. developed by creeping Zn crystal, **1022**
Simons, K. A., D. Kirk and H. J. Arbeiter, line amplifiers for community television systems, **3066**
Simpson, A. W., and R. H. Tredgold, magnetic viscosity in PtCo, **767**
Simpson, J. A., with others, electron-optical shadow method of magnetic-field mapping, **2465**
Sims, G. D., influence of bends on propagation of H_{01} mode, **627**
Sincich, G., velocity of energy in waveguides, **967**
Singer, K., and M. Rettinger, correction of frequency-response for magnetic-head wear, **10**; multiple-track magnetic heads, **1280**
Singh, R. N., ionosphere and nature of fading patterns, **3021**
Sittner, W. R., with R. M. Ryder, transistor reliability studies, **1604**
Sizov, V. P., ΔE effect in polycrystalline Ni, **1485**
Skal'skaya, I. P., with others, field problem for parabolic reflector, **2867**
Skellett, A. M., L. E. Leveridge and J. W. Gratian, electron-beam head for magnetic-tape playback, **11**
Skinner, N. J., R. A. Brown and R. W. Wright, multiple stratification of F layer at Ibadan, **2668**
Skopenko, A. I., with others, photoresistivity of CdS single crystals, **1118**
Skudrzyk, E., with E. Meyer, acoustic properties of gas-bubble screens in water, **933**
—— with others, pulse measurement of reflection from water-borne sound absorbers, **952**
Slade, B. N., with F. L. Hunter, h.f. operation of *p*-type point-contact transistors, **2538**
Slade, D. M., with R. E. B. Makinson, dipole resonant modes of ionized gas column, **3532**
Slager, D. M., with others, mm waves from harmonic generators, **2605**
Slansky, S., Maxwell's tensor, **2368**
Slater, J. C., H. Statz and G. F. Koster, two-electron example of ferromagnetism, **1033**
Slater, N. B., formulae concerning trigonometrical sums, **2155**
Slattery, T. G., detection of sine wave in noise, (**D**)**3024**
Slaughter, D. W., time-shared amplifier stabilizes computers, **2013**
Slee, O. B., with J. G. Bolton, galactic r.f. radiation, sea interferometer, **1755**
—— with others, galactic r.f. radiation, discrete sources, **1756**, **2653**, **2654**
Slemon, G. R., approximate steady-state analysis for nonlinear networks, **351**
—— with M. W. H. Davies, transformer-analogue network analysers, **983**
Slepian, D., signal-parameter estimation in presence of noise, **3031**
Slifkin, L. M., with others, Ge, under ultrasonic stress, **1094**, **1095**, self-diffusion in, **2128**
Slocum, A., and J. N. Shive, shot dependence of *p-n* junction photransistor noise, **2544**
van Slooten, J., noise properties of *LC* oscillators, **363**
Smale, J. A., Commonwealth telecommunications, **1565**
Small, A. M., Jr, and W. R. Thurlow, loudness relations in two-component tones, **2841**
Smårs, E., and O. Wernholm, design of strong-focusing electron synchrotron, **3646**
Smart, J. S., cation distribution in mixed ferrites, **2986**
Smeshkova, V. A., with V. V. Balakov, resistance and photoconductivity of PbS films at high frequencies, **3581**
Smetannikova, Yu. S., with others, induced conductivity of CdS, **3592**
Smidt, J., reflectionless waveguide termination, **2305**
Smiley, G., ultra-low-frequency three-phase oscillator, **2042**
Smit, J., and J. Volger, spontaneous Hall effect in ferromagnetics, **1825**
Smith, A. L., Mn-activated fluoride phosphors, **2961**
—— and A. D. Power, luminescence of systems $\beta Zn_3(PO_4)_2$, $Cd_3(PO_4)_2$-Mn, **3235**
Smith, A. W., and J. Turkevich, effect of neutron bombardment on ZnS phosphor, **2957**

Smith, B. H., horn-type loudspeakers, **321**
Smith, C. E., J. R. Hall and J. O. Weldon, very-high-power long-wave station, **3357**
Smith, C. S., piezoresistance effect in Ge and Si, **2418**
Smith, D. B., N.T.S.C., **1199**
Smith, D. H., with others, transistors and junction diodes in telephone power plants, **3387**
Smith, E. J., transient analyser for magnetic amplifiers, **2722**
Smith, G. F., thermionic and surface properties of W crystals, **2714**
Smith, H. M., determination of time and frequency, (**D**)**2165**
Smith, J. J., Green's functions in evaluating fields, (**A**)**2912**
Smith, L. G., electric field meter with extended frequency range, **3303**
Smith, O. J. M., economic analogues, **56;** trends in feedback systems, **2776;** optimum nonlinear network design, (**A**)**3031**
Smith, P. L., and E. I. Salkovitz, plastic deformation of ADP, **2149**
Smith, R. A., infrared photoconductors, **156**
Smith, S. B., and H. G. Hopkins, h.f. d.f., **735**
Smith-Rose, R. L., wave propagation and television broadcasting, **2234**
Smolczyk, H. G., Sb content and semiconductor properties of PbS, **2136**
Smolenski, G. A., ferroelectric properties of some crystals, **194**
—— and V. A. Isupov, phase transitions in solid solutions with ferroelectric properties, **3278**
—— A. I. Agranovskaya and N. N. Krainik, ferroelectric properties of $BaTiO_3$-$PbZrO_3$ solid solutions, **1446**
Smol'kov, N. A., with E. I. Kondorski, ferromagnetic resonance of Ni-Zn ferrites, **1832**
Smoluchowski, R., influence of pressure on Curie temperature of Fe and Ni, **2143**
Snieder, J., with J. Kistemaker, measurements on gas discharge with axial magnetic field, **1378**
Snow, W. B., principles of stereophonic sound, **1651**
Snowdon, W., and N. Davy, magnetic field, of rectangular pole-pieces, **1388,** between galvanometer pole pieces, **3004**
Snyder, W., effect of ions on characteristic polarization, **504**
Sodaro, J. F., audio nomographs, **689;** shielding nomograph, **2513**
Soderman, R. A., Type-1602-B admittance meter, **479**
Sohon, H., c.r. tube protractor or synchroscope, **2721**
Soled, J., with others, apparatus for crystal pulling in vacuum, **460;** 4-probe instrument for resistivity measurements, **807;** recrystallization of Si, **3255**
Sollenberger, T. E., with A. J. Mallinckrodt, optimum pulse-time determination, **3031**
Solms, S. J., W. L. Nastuk and J. T. Alexander, preamplifier for recording bioelectric potentials, **1360**
Solov'ev, E. G., conical joints, **3126**
Somayajulu, Y. V., travelling disturbances in ionosphere, **725**
Somerville, T., subjective comparison of concert halls, **6;** empirical acoustic criterion, **1657**
Sommerhalder, R., with W. Känzig, properties of colloidal ferroelectric materials, **1445**
Sondermeyer, R., electronic light-trace marker for television, **3057**
Sondheimer, E. H., anomalous skin effect in anisotropic metals, **3521**
—— with B. Donovan, galvanomagnetic effects at h.f., **760**
—— with A. N. Gordon, theory of anomalous skin effect in metals, **1733**
—— with D. J. Howarth, theory of electronic conduction in polar semiconductors, **381**
Sonkin, S., with others, high-power pulsed klystron, **580**
Sonnenfeldt, R. W., with M. S. Corrington, synthesis of constant-time-delay networks, **2882**
Soós, L., with others, m.f. interference from fluorescent lamps, **243**
Sorger, G., after-effect in α-Fe at −70°C, **1822**
Soria, R. M., and J. G. Krisilas, r.f. power measurements, **810**
Soule, D. E., and R. J. Cashman, bulk photoconductivity in PbS, **2103**
Soyck, W., dielectrics containing $BaTiO_3$, **1449**
Spaeth, D. A., T. F. Rogers and S. J. Johnson, fused-quartz delay line, **666**
Spalding, H., and W. Vogt, variable-frequency pulse generator, **366**
Spälti, A., a.f. filter with adjustable characteristic, **2881**
Spayth, F., and S. East, review of sliding contacts, **1557**
Spears, R. A., quartz crystals for filters, **86**
Specht, H., with others, structure of amorphous Se, **1077**
Speer, F., with H. Gobrecht, secondary emission from impurity semiconductors, **762**
Spencer, D. E., with P. Moon, TEM waves in cylindrical systems, **1298;** meaning of the vector Laplacian, **1844;** interpretation of Ampère experiments, **2922;** Coulomb force and Ampère force, **2923;** a new electrodynamics, **2924**
Spencer, M., with B. H. Briggs, horizontal movements in the ionosphere, **2945**
Spencer, N. A., cavity-resonator design charts, **2335**
Spencer, N. W., H. F. Schulte and H. S. Sicinski, rocket instrumentation for upper-atmosphere temperature determination, **2933**
Spengler, G., acoustic-optical image conversion, **614**
Spengler, S. R., with others, current-step waveform generator, **2183**
Spenke, E., mechanism of crystal rectifiers and transistors, **1947**
Spero, R. E., two-step smoothing in digital control computers, **48**
Spetner, L. M., errors in power spectra due to finite sample, **2997**
Spieth, W., J. F. Curtis and J. C. Webster, responding to one of two simultaneous messages, **2837**
Spighel, M., with others, consequences of theory of action at a distance, **3200**
Spivak, G. V., and A. Gel'berg, electron emission from Ni, **2071**
—— and others, electron-optical method of imaging objects with magnetic inhomogeneities, **2739**
Sponsler, G. C., potential distribution and prevention of minimum between secondary-electron emitter and control grid, **2821**
Spooner, A. M., and T. Worswick, special effects for television, **561**
Spooner, D. J., 1·5–30Mc/s at sea, **3035**
Spork, A., free electron in electric and magnetic fields, **105;** the dipole and its radiation, **1678**
Sprague, J. K., with L. Podolsky, capacitor and resistor components, **2585**
Spratt, H. G. M., magnetic recording tape, **2466**
Sproson, W. N., determination of subjective white, **265;** measurement of performance of lenses, **2236**
Sproull, R. L., R. S. Bever and G. Libowitz, oxygen vacancies in BaO, **1114**
Squires, W. K., and H. L. Newman, video-amplifier design charts, **1231**
Srinivasan, D., with others, ultrasonic waves in liquids, absorption of, **4, 1274, 1275,** temperature effect of, **5,** frequency dependence of power of radiation, **1272**
Stalder, H., R/T links of Kraftwerke Oberhasli, **3678**
Stampfl, R., pulse delta modulation, **3673**
Standley, K. J., with G. D. Adam, microwave resonance absorption in Mn compounds, **766**
Stanesby, H., with others, London-Birmingham television-cable system, (**D**)**2781**
Stanley, G. J., with others, galactic r.f. radiation, discrete sources, **1756, 2653, 2654**
Stark, J., constitution of light energy, **1727**
Starodubtsev, S. V., with others, secondary emission in conductors bombarded by ions, **3530**
Staton, M. G., microwave communication system for Allied Forces, **850**
Statz, H., saturation magnetization of binary ferromagnetic alloys, **1105**
—— with others, two-electron example of ferromagnetism, **1033**
Stavitskaya, T. S., with others, mobility of charge carriers in semiconductors, **163**
Stearns, C. A., with others, apparatus for crystal pulling in vacuum, **460;** 4-probe instrument for resistivity measurements, **807**
Steele, A. J., with E. V. Sundt, fuses for electronic equipment, **344**
Steele, E. L., charge storage in junction diodes, **3710**
Steffenhagen, K., decoding processes for p.c.m., **239**
Stegen, R. J., excitation coefficients and beam widths of Tchebycheff arrays, **331**
Stein, N., with others, standardization of printed circuit materials, **2065**
Stein, S., graphical analysis of measurements on multiport waveguide junctions, **1673**
—— with others, graphical analysis of two-port waveguide junction, (**D**)**3456**
Steinberg, J. L., with others, two u.h.f. radiometers, **716;** influence of ionosphere on galactic radiation at 29·5 Mc/s, **2397**
Steinberg, P., gated time markers for c.r.o. display, **2179**
Steiner, F., and I. Riess, a.f. negative-feedback amplifier as filter, **1719**
Steinkamp, G., magnetostrictive oscillators, **1638**
Stentiford, W. J., equipment of B.B.C. Swansea studios, **854**
Stephen, J. H., with others, irradiation of transistors, **1949**
Stephens, K. G., with others, acceleration of heavy ions in fixed-frequency cyclotron, **3322**
Stephens, R. B., instruments for radiation protection, **3659**
Stephens, W. E., with others, pulse-height analyser, **1323**
Stepp, W., with others, planning u.s.w. broadcasting networks, **532**
Stergis, C. G., atmospheric ions in nonequilibrium system, **2388**
Stern, A. P., with S. K. Altes, colour signal for single-gun tubes, **3699**
Sternberg, M., with others, secondary recrystallization textures in soft iron, **447**
Sternberg, R. L., two-frequency modulation products, tables of functions, **3028**
—— and H. Kaufman, two-frequency modulation products, **2212**
Sternheimer, R. M., focusing charged particles by magnets, **498**
Stevels, J. M., with others, dielectric relaxation of glass at low frequency, **1841**
Stevens, D. K., and J. H. Crawford, Jr, magnetic susceptibility of Ge, **1467**
Stevens, K. W. H., with B. Bleaney, paramagnetic resonance, **452**
Stevenson, A. F., e.m. scattering, solution of problems as power series, **706,** by ellipsoid, **707**
Stewart, A. L., recombination in F layers, **1766**
Stewart, J. L., electron flow through tubes with magnetic focusing, **903;** quasi-distortionless filter functions, **1706**
Stiassny, W., heating problem in Se rectifier, **860**
Stilbans, L. S., with others, mobility of charge carriers in semiconductors, **163**
Stock, J. R., arithmetic unit for digital computer, **2580**
Stockhausen, K., with others, notation for electronic music, **3333**
Stoebe, E., with others, automatic radio equipment for weather data, **815**
Stöhr, A., $(n+1)$-poles, **1343**
Stoppini, G., with others, time-discriminating pulse selector, **1007**
Storch, L., parallel-Z calculations, **648**
Storer, J. E., and J. Sevik, plane-wave scattering from finite conducting obstacles, **2312**
—— L. S. Sheingold and S. Stein, graphical analysis of two-port waveguide junction, (**D**)**3456**
—— with L. S. Sheingold, circumferential gap in circular waveguide, **2854**
Storey, L. R. O., whistling atmospherics, **142**
Storm, H. F., transient response of saturable reactors, **2588;** theory of magnetic amplifiers with square-loop core materials, **2615**
Stout, G. E., and J. C. Neill, radar measurement of area rainfall, **424**
Stout, T. M., block-diagram analysis, of networks, **994,** of circuits, (**A**)**1346, 2604;** linear and nonlinear servomechanism response, **2776**

—— with F. C. Fickeisen, analogue methods for optimum servo-mechanism design, **1183**
Stoyanova, I. G., and A. I. Frimer, image formation in electron microscope, **2192**
Strafford, F. R. W., television aerials, for bands I–V, **17,** for band III, **1676;** band III television interference, **3708**
Straiton, A. W., with T. P. Higgins, elliptical resonant cavity operating in TE_{111} mode, **990**
—— with others, statistical survey of atmospheric refractive-index variation, **1759**
Straker, T. W., with others, ionospheric propagation at 30–65 kc/s over short distances, **2200**
Strakhov, L. P., with R. Ya. Berlaga, production of e.m.f. by illumination of PbS photoresistors, **3715**
Strauss, A. J., with others, photoeffects in InSb, **3233**
Street, R., with others, magnetic viscosity in precipitation alloys, **3272**
Streib, J. F., with others, University of Washington 60-in. cyclotron, **3323**
Strobel, G., and H. Scherenzel, interference suppression, **1559**
Strong, H., with C. Peters, manufacture and testing of Ge rectifiers, **889**
Strull, G., production of *p*-type CdS rectifier, **1474**
Struthers, J. D., with C. D. Thurmond, equilibrium thermochemistry of alloys of Ge and of Si, **2420**
—— with others, diffusivity and solubility of Cu in Ge, **2430**
Strutt, M. J. O., transistors in amplifier output stages, **2617**
Stubner, F. W., acceleration effects on valves, **222**
Stuckes, A. D., electrothermal characteristics of point contacts to semiconductors, **111**
Stuke, J., optical absorption constant of CdO, **3230**
Stumman, H. E., and J. W. Ritcey, premium twin triode, **1974**
Stumpers, F. L., bibliography of information theory, **1566**
Sturgess, H. E., and F. W. Newson, independent-sideband s.w. transmitter for radio link, **882**
Stutz, T., method for television film scanning, **2237**
Stutzer, G., with W. Kroebel, application of multivibrator principle in counter-tube amplifiers, **2051**
Styles, H. E., neon-tube measuring device, **203**
Subhadramma, G. V., oscillographic measurements of a.f. valve noise, **2825**
Suchet, J., ceramic materials, **3611**
van Suchtelen, H., tolerances and temperature coefficient of coils with ferroxcube slugs, **345**
Suchy, K., step-by-step transition from wave to ray optics, **1372, 3515**
Sucksmith, W., magnets and magnetism, recent developments in, **768**
Suda, K., field-strength calculation, **3340**
Sueur, R., with others, standardized equipment Type 51L, **1909**
Sugar, G. R., estimation of correlation coefficients from scatter diagrams, **2457**
Suhl, H., and L. R. Walker, guided-wave propagation through gyromagnetic media, **2563, 3129**
—— with others, travelling-wave valves using ferrite attenuators, **3092**
Sumby, W. H., with others, identification by voice, **2839**
Sumi, M., excitation of oscillations in thermal plasma, **2638**
—— with K. Udagawa, thermal effect in electron beam in travelling-wave valves, (D)**1960**
Summers, S. D., with A. H. Ryan, microwaves used to observe commutator surfaces, **2736**
Sunde, E. D., theoretical fundamentals of pulse transmission, **2763, 3352**
Sundt, E. V., and A. J. Steele, fuses for electronic equipment, **344**
Suran, J. J., with W. F. Chow, transient analysis of transistor amplifiers, **342**
—— with J. S. Schaffner, transistors, amplifier, transient response of, **1326,** solution of diffusion equation for, **3713**
Surtees, W. J., with J. R. Wait, impedance of top-loaded aerial over grounded screen, **2860**
Suryan, G., synchronous magnetic recorder, **241, 242**
Sutherland, W. D., with J. E. Parton, combined magnetization of magnetic materials, **1492**
Sutton, D. J., with others, motion of slow electrons in air, and application to ionosphere, **106**
Suzuki, K., with others, microwave relay for Japanese television, **2783**
Suzuki, M., with others, capacitor microphone Type MR-103, **3444**
Suzuki, Y., with S. Miyatani, conductivity of Cu_2S, **1120**
Swafford, J. E., with J. M. Benson, Raydist systems for radiolocation, **1431**
Swann, S. A., a.c. distribution in solid cylindrical conductor, **3520**
Swann, W. F. G., electret behaviour, **107**
Swanson, J. A., diode theory in light of hole injection, **2536**
—— with R. Landauer, diffusion currents in semiconductor Hall effect, **165**
Swarup, P., with —— Krishnaji, absorption of microwaves in gases, **1747;** dispersion in NH_3 in 3-cm region, **1854**
Swenson, C. A., and A. G. Emslie, low-temperature electronics, **1369**
Synge, J. L., fundamental theorem of networks, **76**
Syski, R., with others, pulling effect in synchronized systems, **2018**
Székely, A., control of gas-filled valves by alternating voltages, **599**
Székely, G., printed-circuit television receiver, **1221**

Ta-You Wu. See Wu, Ta-You.
Taft, E. A., and F. H. Horn, Au as donor in Si, **1805**
Taft, V. A., physical realizability of 2*m*-rank impedance matrix as passive multipole, **88**
Takagi, E., with others, effects of crystal size and shape on oxide-coated cathodes, **2265**
Takeuchi, H., and others, path-length lens antenna, **3471**
Talbot, A., synthesis of reactance networks, **2029**
Talekar, V. L., oscillator characteristic equation, **682**
Talpey, T. E., dielectric and magnetic constants at cm and mm λ, **801**
Tamm, K., and E. Aha, capacitive velocity pickup, **319**
—— and G. Kurtze, microphone with high directivity, **3116**
—— with W. Kuhl, sound propagation in water-filled pipes, **308**
—— with others, anechoic chamber for sound and short e.m. waves, **942**
Tanaka, H., and T. Kakinuma, interferometer for locating sources of solar noise, **3204**
Tanenbaum, M., and H. B. Briggs, optical properties of InSb, **1098**
—— and J. P. Maita, Hall effect and conductivity of InSb single crystals, **758**
Tannenwald, P. E., with J. O. Artman, permeability-tensor measurement in ferrites, **769**
Tanner, R. L., aerial-matching-network efficiency, **356**
Tanter, H., L.C.T. radar receiver, **2407**
Tanuma, S., effect of thermally produced lattice defects on Te, **3598**
—— with others, electrical properties of Te crystals at low temperatures, **2702**
Tarkhov, A. G., models of e.m. fields for geophysical prospecting, **492**
Tasny-Tschiassny, L., electronic a.c. potentiometer, **485;** return-difference matrix in linear networks, **662;** location of roots of polynomial equations, **1495**
Tatarski, V. I., with V. A. Krasil'nikov, scattering of sound in turbulent stream, **1270**
Tate, C. E., remote control of radio receivers, **3685**
Tate, H. J., temperature-stabilized transistor amplifiers, **2616**
Tavares, A. Diaz. See Diaz Tavares, A.
Tchediteh, P., with others, waveguide switching device using gas-filled tubes, **2870**
Tchernicheff, A., radio spectroscope, **3306**
Tebble, R. S., recording fluxmeter, **1508**
—— and V. L. Newhouse, Barkhausen effect in single crystals, **450**
Teer, K., with J. Haantjes, multiplex television transmission, **3692**
Telesnin, R. V., and E. F. Kuritsyna, effect of demagnetizing field on magnetic viscosity, **176**
Telkes, M., solar thermoelectric generators, **3364**
Tellegen, B. D. H., network theorem and applications, **1000**
Teller, E., origin of cosmic rays, **2929**
Tellerman, J., measuring transistor temperature rise, **2259**
Tellier, J. C., neutralizing pentodes in i.f. stages, **97**
Templeton, I. M., and D. K. C. MacDonald, conductivity and noise of carbon resistors, **343**
—— with B. V. Rollin, noise in Ge filaments at v.l.f., **2705**
Templin, E. W., with J. G. Frayne, stereophonic recording and reproducing equipment, **1279**
Teng, L. C., alternating-gradient e.s. focusing for linear accelerators, **2738**
Terenin, A. N., with E. K. Putseiko, sensitization of internal photoeffect by chlorophyll, **1779**
Terlecki, R., narrow-band frequency-shift telegraph system, **3035**
Terman, F. E., and J. M. Pettit, Electronic Measurements, (B) **2733**
Tessman, J. R., A. H. Kahn and W. Shockley, electronic polarizabilities of ions in crystals, **1394**
Testemale, H., la Maison de la Radio, Paris, **1179**
Teszner, S., theory of semiconductor systems, rectifiers and complexes, **3599**
—— P. Seguin and J. Millet, semiconductor complexes forming non-linear resistors, **434**
Te-Tchao, Ouang, E. Montel and P. Pannetier, high-sensitivity monofilar electrometer, **1511**
Teviotdale, A., with others, effects of band shape on magnetic properties, **2140**
Tew, F. R., with C. B. Wooster, radio propagation survey, **234**
Tewordt, L., theory of radiationless recombination in nonpolar semiconductors, **3576**
Thackray, J. C., with G. Millington, ground-wave propagation curves for 150kc/s to 10 Mc/s, **235**
Tharp, N. B., d.s.b. a.m. multiplex system for microwave radio, **2771**
Theissen, E., critical frequency and transmission factor of F_1 layer, **831**
Theodossiou, A., with K. Alexopoulos, ferromagnetism of pyrrhotite, **763**
Thévenet, G., with others, echometer for testing coaxial cables, **1136**
Thibert, H., with J. Mey, measurement of time constants of indicating instruments, **1143**
Thiede, H., efficiency measurements on transducers for liquid-borne sounds, **939**
Thiele, R., directional distribution of sound in rooms, **311**
Thien-Chi, Nguyen, and J. Vergnolle, Ta electrolytic capacitors, **2023**
Thies, H., with H. Ehlers, frequency and common-wave measurements at Wittsmoor, **3680**
Thiessen, P., distribution of frequency channels, **1911**
Thinius, E., circle diagram for reflection coefficient, **626**
Thomas, A. B., design of peaking transformer, **68**
Thomas, C. E., Jr, automatically de-iced X-band aerial, **974**
Thomas, D. E., single-transistor f.m. transmitter, **1599**
Thomas, E. L., analogue computer, **1312**
Thomas, H. S., motion of valve filaments under shock, **1254**
Thomas, J. W., V. V. Verbinski and W. E. Stephens, pulse-height analyser, **1323**
Thomas, L. R., microwave applied to railroad operation in Gulf Coast area, **2219**
Thomas, P. A. V., a.c. stabilizer, **865**
Thomas, R. K., and M. E. Ringenbach, vertically polarized microwave aerial, **973**
Thomas, T. S. E., capacitance of anchor ring, **3543**
Thomas, W. H., digital-computer programming, **25**
Thomasson, D. W., 'wow' measurement, **473**
Thomasson, L. T., digital servomechanism controls shaft position, **3141**

Thompson, A. M., with D. L. H. Gibbings, gain stability of feedback amplifiers, **1361**
Thompson, A. R., with others, galactic radio sources of large angular diameter, **2657**
Thompson, M. O., Jr, C. E. Tschiegg and M. Greenspan, subharmonic crystal oscillators, **2048**
Thompson, P. O., with J. C. Webster, responding to two overlapping messages, **2838**
Thomsen, J. S., graphical analysis of nonlinear circuits, **1329**
Thomson, J., physics in electronic valve industry, **897**
Thorensen, R., with others, SWAC, **31**
Thornhill, J. W., with others, Si transistor, **3072**
Thourel, L., and others, waveguide switching device using gas-filled tubes, **2870**
Thouzéry, J., tensor analysis of networks, **80**
Thulin, A., photoelectric measurement of spot displacement, **2472**
Thurlow, W. R., with A. M. Small, Jr, loudness relations in two-component tones, **2841**
Thurmond, C. D., equilibrium thermochemistry of alloys of Ge and of Si, **2419**
—— and J. D. Struthers, equilibrium thermochemistry of alloys of Ge and of Si, **2420**
Thurston, E. G., sensitivity of bimorph transducers, **954**
Thurston, G. B., and J. K. Wood, concentric orifice in circular tube, **935**
—— with J. K. Wood, acoustic impedance of rectangular tubes, **934**
Thuy, H. J., galvanomagnetic amplifier, **3179**
Thwaites, J. E., and C. F. Sayers, production of thin quartz plates, **788**
Tiberio, U., theory of Boella effect, **654**; radar and information, **740**
Tice, T. E., with others, design of arrays, **3135**
Tidmore, A. V., remote control for f.m. broadcasting, **260**
Tien, Ping King, travelling-wave-valve helix impedance, **584**; bifilar helix for backward-wave oscillator, **3089**
—— with J. R. Pierce, coupling of modes in helices, **3451**
Tijssen, P. J., Type-EL 84 power pentode, **602**
Tiley, J. W., and R. A. Williams, surface-barrier transistors, **896**
Tillman, J. R., and J. C. Henderson, thermal properties of point-contact Ge diodes, **282**
—— J. Butterworth and R. E. Warren, frequency dependence of mutual conductance of aged oxide-cathode valves, **907**
Timmins, E. W., with F. W. G. Rose, estimating impurities in Ge, **1464**
Tipple, P. M., and H. K. Henisch, thermal effects in point-contact diodes, **1241**
Tischer, F. J., low-loss microwave line, **1669**; electrical properties of thin Ag films at 3 kMc/s, **1834**; transmission theory of homogeneously guided waves, **1991**; elastic pulse modulation, **3029**
Titov, V. N., with L. D. Bryzzhev, quartz-tuning-fork-controlled clocks, **3616**
Todd, J., evaluation of exponential integral for large complex arguments, **3614**
Tolefson, H. B., reduction of gust loads through use of radar, **1069**
Tomlinson, T. B., conductivity of oxide cathode coatings, **3409**
—— and W. L. Price, theory of the flicker effect, **606**
Tomono, M., d.c. characteristics of Se rectifier, **190**
Tomovich, R., versatile electronic function generator, **2868**
Tomura, M., with others, resistivity of polycrystalline Se, **2972**
van Tongerloo, F., magnetic and dielectric elements for computers, **1320**
Toothill, G. C., with others, digital computers at Manchester University, **978**
Torizuka, Y., Y. Kojima and T. Fujimura, g factor of Ni ferrite aluminate, **2985**
Torsch, C. E. high-efficiency low-copper sweep yokes, **3064**, for colour television, **3065**
Toubin, M., 'Sever' television receiver, **3698**
Tournier, M., physical properties of crystals, **457**
Touschek, B., with M. Sands, alignment errors in strong-focusing synchrotron, **1531**
Townsend, M. A., and W. A. Depp, cold-cathode tubes for a.f. signals, **1266**
Tränckler, G., with K. Hauffe, CaO, an amphoteric semiconductor, **1809**
Traub, E. H., television film scanner, **2238**
—— and J. F. Fisher, continuous film scanner, **3372**
Tredgold, R. H., with A. W. Simpson, magnetic viscosity in PtCo, **767**
Trembasky, R., with R. Lamoral, investigation of acoustics using models, **616**
van Trier, A., with others, Cherenkov effect at microwave λ, **1392**
van Trier, A. A. T. M., investigation of nonreciprocal quadripoles, **82**; guided waves in anisotropic media, **1300**
Trivedi, N. K., with R. K. Vepa, efficiencies of loudspeakers, **2292**
Trolan, J. K., with others, field-emission-initiated vacuum arc, **1025**, **1026**; space-charge effects in field emission, **1027**
Truby, F. K., with others, electrical conduction in halide-contaminated ice, **2966**
Tschiegg, C. E., with others, subharmonic crystal oscillators, **2048**
Tsidil'kovski, I. M., rectification in semiconductors in thermal field, **1457**
Tsuya, N., with others, automatically recording magnetic balance, **2723**
Tucker, D. G., Modulators and Frequency Changers, (**B**)**1017**; history of homodyne and synchrodyne, **2207**; intermodulation distortion in rectifier modulators, **2531**
—— and J. W. R. Griffiths, detection of pulse signals in noise, **150**
Turkevich, J., with A. W. Smith, effect of neutron bombardment on ZnS phosphor, **2957**
Turner, A. H., with E. E. Gloystein, colorplexer, **1193**
Turner, C. H. M., frequency stabilization of square-wave-modulated microwaves, (**A**)**652**, **2017**; birefringence in crystals and in ionosphere, **2198**
Turner, F. T., communications synchronizing systems, **1563**
Turner, W. J., with others, infrared photoconductivity due to neutral impurities in Ge, **1808**
Turrin, A., with E. R. Cataniello, stability and periodicity in strong-focusing accelerator, **1530**
Twersky, V., transmission and reflection theorems, **3514**
Twiss, R. Q., nature of discrete radio sources, **2380**, (**C**)**3206**
Tyler, V. J., pocket reactance calculator, **468**
Tzara, C., with others, consequences of theory of action at a distance, **3200**

Überall, H., photoeffect in uniform electric field, **104**
Uchida, H., Y. Mushiake and S. Nishida, transmission loss of waveguide with thin dielectric film, **2304**
Uda, S., and Y. Mushiake, gain of linear-array aerials, **1996**; principle of Yagi-Uda aerial, **2314**, **3136**; working gain of aerial connected to feeder, **3462**; matching devices for doublet aerial, **3463**
Udagawa, K., and M. Sumi, thermal effect in electron beam in travelling-wave valves, (**D**)**1960**
Uehling, E. A., with J. A. Young, Jr, tensor formulation of ferromagnetic resonance, **2635**
Uflyand, Ya. S., with others, field problem for parabolic reflector, **2867**
Ugai, S., with others, microwave fading, **3669**
Ullery, L. R., with R. K. Orthuber, solid-state image intensifier, **3061**
Ulmo, J. F., with C. Février, industrial interference, **3349**
Ulwick, J. C., with others, bifurcation of the E region, **1054**
Ul'yanov, G. K., with L. L. Myasnikov, magnetic dispersion of sound, **3433**, **3434**
Unger, H. G., dielectric tubes as waveguides, **3458**
Unwin, R. S., u.s.w. field strength in ground-based duct, **1165**
Urban, P., with E. Ledinegg, free vibrations of isotropic elastic media, **922**; magnetic behaviour of linear atomic chains, **1589**; permeabilities of ferromagnetic metals at cm λ, **1505**; determination of elastic constants using ultrasonic waves, **1522**; equivalence theorem for coupled e.m. cavity-resonator system, **1700**
Urbarz, H. W., with H. Meinke, characteristic impedance of rectangular waveguides, **3131**
Urkowitz, H., filters for detection of small radar signals in clutter, **149**
Urtel, R., and K. Jekelius, modulation amplifier and video frequency monitoring equipment, **562**
Use, G., testing radio interference from h.f. heating equipment, **3672**
Uyeda, H., with others, simultaneous measurement of ionosphere virtual height and critical frequency, **2937**
Uzan, R., and G. Mesnard, cathodes made by compressing and sintering mixtures of powders, **3728**
—— with G. Mesnard, moulded cathodes of Ni and alkaline-earth oxides, **2818**

Väisälä, V., radio theodolite, **422**
Vakhnin, V. M., characteristic functions of real resonators, **1702**
Valdes, L. B., resistivity measurements on Ge, **1502**
Valeton, J. J. P., and F. H. J. van der Poel, flying-spot scanner using MC13-16, **1217**
Valladas, G., measurement of weak electric charges by pulse technique, **1130**
Vallauri, G., law of induction, **1034**
Vallese, L. M., diffusion of pulsed currents in conductors, **2067**
Van Dyck, A., aviation electronics, **609**
Van Horn, W., with P. H. Keck, surface tension of Ge and Si, **188**
—— with others, recrystallization of Si, **3255**
Van Uitert, L. G., J. P. Schafer and C. L. Hogan, low-loss ferrites for 4 kMc/s, **3607**
Van Zeeland, D. L., with others, loss measurements on surface-wave lines, **3121**
Vance, P. R., and D. L. Haas, input/output unit for analogue computers, **49**
Vandakurov, Yu. V., diffraction of e.m. waves at ideally conducting half-plane, **2351**
Varnerin, L. J., Jr, neutralization of ions near metal surfaces, **700**
Varney, R. N., liberation of electrons by positive-ion impact on cathode of discharge tube, **2357**
Vasil'ev, E. I., and V. M. Lopukhin, noise in travelling-wave valves, **3722**
Vasseur, J. P., Gaussian pulses, **1905**, **2504**; carrier-current radio links and C.C.I.F. recommendations, **2220**; comparison of code and conventional types of modulation, **3027**
Vaughan, H. E., with W. A. Malthaner, automatic telephone system with magnetic-drum storage, **65**
Vauquois, B., P. Coupiac and M. Laffineur, solar radio-noise storms, **1043**
Vautier, R., study of magnetostriction, **3277**
Veith, F. S., with others, image orthicons for colour cameras, **1216**
Veneklasen, P. S., power capacity of loudspeakers, **618**
Venkiteshwaran, S. P., B. K. Gupta and B. B. Huddar, measurement of upper-air conductivity by radiosonde, **2093**
—— with others, F-type radiosonde, **1154**
Venzke, G., acoustical measurements on air-conditioning installations for studios, **1656**
—— with W. Händler, nomogram for determining sound-absorption coefficient, **3443**
Vepa, R. K., and N. K. Trivedi, efficiencies of loudspeakers, **2292**
Verbinski, V. V., with others, pulse-height analyser, **1323**

Verbitskaya, T. N., with N. P. Bogoroditski, characteristics of ferroelectric ceramics, **1444**
Vergara, W. C., design of crystal lattice filters, **674**
Vergnolle, J., with Nguyen Thien-Chi, Ta electrolytic capacitors, **2023**
Verma, A. R., observation of mosaic structure on face of Ge single crystal, **2974**
Verma, J. K. D., with R. Roy, irregularities in ionosphere, **1761**
Veronesi, P., with D. Brini, decay of space charges in intermittent discharges in Ne and Ar, **2068**
—— with others, amplifier with low dissipation and short rise time, **3507**
Verzuh, F. M., solutions of boundary-value problems on automatic computers, **2575**
Vesper, W., with others, receiver installations for telegraphy and s.s.b. telephony in overseas service, **2500**
Vestine, E. H., geomagnetic disturbance as atmospheric phenomenon, **1757**; immediate source of field of magnetic storms, **1758**; winds in upper atmosphere deduced from dynamo theory, **2394**
Vettiner, F. J., balancing a.c. measurement bridges, **3630**
Vice, R. W., ground-wave propagation conditions in S. Africa, **3342**
Vick, F. A., and C. A. Walley, negative-ion emission from oxide-coated cathodes, **2815**
Vidal, G., and P. Lanusse, effects of tension and compression on magnetic characteristics of mild steel, **446, 1106**
Viglin, A. S., solution of magnetostatic problem for anisotropic medium, **3534**
Vilbig, F., visible-speech coordinate-conversion analyser, **3440**
Vilenski, I. M., earth's magnetic field and interaction of waves in ionosphere, **2496**; effect of ionosphere nonlinearity on wave propagation, **2749**
Villard, O. G., Jr, with M. G. Cifuentes, r.f. phase-difference networks and polyphase selectivity, **1910**
—— with others, length of meteor trails, **124**; ionosphere wind analysis by meteoric echo techniques, **2393**
Villars, F., and V. F. Weisskopf, scattering of e.m. waves by turbulent atmosphere, **2747**
Ville, J. A., conjugate pulse modulation with linear detection, **3030**
Vincent, C. H., beam-deflection devices and electron multipliers for mμs pulses, **2822**
Vincent, P., with others, waveguide switching device using gas-filled tubes, **2870**
Vinycomb, R. K., electronic aids to vibration measurement, **1881**
Visokovski, D. M., See Vysokovski, D. M.
Visvanathan, S., and J. F. Battey, diffusion of minority carriers in semiconductor, **1795**
Vitkevich, V. V., wide-band radio interferometer, **2658**
Vodar, B., with others, measurement of temperature of conductor based on noise, **2489**
Voelkel, H., with E. Menzer, design of phase equalizers for television, **1933**
Vogan, D. H., with D. L. Benson, testing cold-cathode tubes, **2184**
Voge, J., u.s.w. transmission, frequency bandwidth for, **510**, problems of, **3656**
—— with A. Perlat, atmospheric attenuation of mm and cm waves, **1894**
Vogel, F. L., W. T. Read and L. C. Lovell, recombination at lineage boundaries in Ge, **3259**
Vogel, T., 'hereditary' dynamic systems with discontinuities ('à déferlement'), **1716**
Vogelman, J. H., measurement of waveguide attenuation, **802**
Vogelsong, J. H., transistor pulse amplifier, **96**
Vogt, E., with A. Mayer, magnetic measurements on iron amalgam, **449**
Vogt, G., with others, receiver installations for telegraphy and s.s.b. telephony in overseas service, **2500**
Vogt, K., measurements of angle of arrival on short waves, **1890**
—— with G. Schellmann, cross-modulation in field of high-power transmitters, **3384**
Vogt, K. H., pulse-regeneration equipment for television, **2247**
Vogt, O., with G. Busch, variation of properties of Sb and InSb at melting point, **3573**
Vogt, W., with H. Spalding, variable-frequency pulse generator, **366**
Volger, J., ferromagnetic oxidic components of Mn, **3604**
—— J. M. Stevels and C. van Amerongen, dielectric relaxation of glass at low frequency, **1841**
—— with J. Smit, spontaneous Hall effect in ferromagnetics, **1825**
Volk, P., with others, charge-carrier device as high ohmic resistance, **3150**
Volkmann, J. E., J. F. Byrd and J. D. Phyfe, theatre sound system, **1282**
Volkova, K. A., ferromagnetic resonance using waves from a mass emitter, **1824**
Volmer, P., radar determination of meteor trails, **713**
Voloshchenko, V. I., with others, electrical conductivity of Cu_2O, **1815**
de Voogt, A. H., earth-potential measurements for magnetic storm indication, **2660**
Vorobei, Z. F., with N. P. Bogoroditski, nonlinearity of SiC resistors, **3482**
Voronin, A., with others, thermoelectric generator TGK-3, **2514**
Voss, H. H., low-pass and band-pass minimum-phase constant-delay networks, **2880**
Vowels, R. E., application of statistical methods to servomechanisms, **1582**
Vul, B. M., capacitance of junction layers in semiconductors, **3577**
Vysokovski, D. M., amplitude-phase correlation of currents in 'wave-channel' aerial, **3466**

Wachowski, H., with others, vacuum-tube detector using large transit angles, **3096**
Wada, H., with others, path-length lens antenna, **3471**
Wada, M., amplification factor of triode, **3413**
Wadley, T. L., variable-frequency crystal-controlled receivers and generators, **2759**
Wagener, S., influence of electron impact on rate of sorption of gases, **2685**; reactions between oxide cathodes and gases at very low pressures, **3406**; getters for production of very high vacua, **3566**
—— with others, life of oxide cathodes, **(D)906**
Wait, J. R., induction in conducting sheet, **119**; radiation, from dipole over stratified ground, **332,** from line source, **1745, 1746,** from ground aerial, **1997**; complex permeability of spherical particles, **442**; theory of aerial with corner reflector, **3470**
—— and W. J. Surtees, impedance of top-loaded aerial over grounded screen, **2860**
Walker, A. C., hydrothermal synthesis of quartz crystals, **459**
Walker, D., and others, acceleration of heavy ions in fixed-frequency cyclotron, **3322**
Walker, J. R., with others, single-core magnetic amplifier analysis, **(A)2900**
Walker, L. R., stored energy and power flow in electron beams, **3082**
—— with J. R. Pierce, 'Brillouin flow' with thermal velocities, **1028**
—— with H. Suhl, guided-wave propagation through gyromagnetic media, **2563, 3129**
Walker, R. W., electronic random selector, **2591**
Wall, E., servo-systems for mathematical operations, **646**
Wallace, G. A. G., with others, high-definition general-purpose radar, **1068**
Wallace, P. R., fluctuating echo from randomly distributed scatterers, **742**
Waller, M. D., vibrations of plates, **1631**
Walley, C. A., with F. A. Vick, negative-ion emission from oxide-coated cathodes, **2815**
Wallman, H., wide-band searching a.f.c. circuit, **2209**
Wallmark, J. T., ultimate performance of space-charge deflection valves, **3729**
Walraven, P. L., test of Langmuir's three-halves-power law, **2266**
Walsh, E. J., mechanical problems of valves for L3 carrier, **3415**
Walsh, J., with E. D. Whitehead, radio telemetry, **(D)1523**
Walsh, J. F., with R. F. Schwarz, surface-barrier transistors, **895**
Walter, C. H., with others, travelling-wave slot aerials, **334**
Walter, J. C., million-watt naval communication transmitter, **2791**
Walters, L. G., optimum lead-controller synthesis in feedback-control systems, **2776**
Walther, A., and J. Dörr, transients associated with fundamental transmission functions, **244**
—— and K. J. Lesemann, machine processing of equation for spark gap, **699**
Walton, R. F., with E. R. Bowerman, flexible plated circuit, **695**
Wang, T. C., with others, vacuum-tube detector using large transit angles, **3096**
Wangsness, R. K., magnetic resonance in ferrimagnetics, **1828**
Warburton, J. A., with W. N. Christiansen, distribution of radio brightness over the sun, **715**
Ward, E. E., calculation of transients in dynamical systems, **2163**
Ward, P. W., oscillator feedback networks, **2891**
Ward, W. D., subjective musical pitch, **2832**
Ware, A. A., collision effects and conduction current in ionized gas, **3195**
Ware, W. H., principles of new binary counter, **42**
Waring, J., with W. P. Boothroyd, selection of u.h.f. television signals, **535**
Waring, S., and B. Murphy, portable high-speed c.r.o., **1862**
Warnecke, R. R., recent results on valves for microwave frequencies, **3084**
—— and P. Guénard, work in France on u.h.f. valves, **901**
—— P. Guénard and O. Doehler, fundamental phenomena in travelling-wave valves, **3085**
Warner, A. W., h.f. crystal units for primary frequency standards, **3619**
Warner, G. L., h.f. airborne communication equipment, **3035**
Warren, R. E., with others, frequency dependence of mutual conductance of aged oxide-cathode valves, **907**
v. Wartenberg, H., measurement of resistance of powders, **474**
Watanabe, Y., circuit considerations of transistor, **2346**
—— and N. Honda, physical principles in A-type transistor action, **2258**
—— with T. Nimura, sound radiation from zonal radiators, **3436**
Watkins, D. A., low-noise travelling-wave valve, **905**
—— and E. A. Ash, helix as backward-wave circuit structure, **3399**
—— and A. E. Siegman, helix impedance measurements using electron beam, **1965**
Watkinson, E., control-grid currents in valves, **3395**
Watson, D. W., with D. H. Shinn, octantal error in phase-to-amplitude conversion circuit, **146**
Watson, R. E., with others, universal meter, **2182**
Watters, R. L., with W. C. Dunlap, Jr, dielectric constants of Si and Ge, **1803**
Watts, J. M., and J. N. Brown, sweep-frequency investigation in l.f. band, **2396**
Waymouth, J. F., with others, electroluminescent lamp, **3636**
Weaver, D. K., Jr, *RC* wide-band phase-difference network, **2039**
Webb, R. C., pattern generator for television, **3009**
Weber, A. H., with others, photoemission of W in region of predicted Schottky deviations, **155**
Weber, E., microwave power measurements, **3294**
Weber, H., dimensioning of loaded waveguide for H_{10} mode, **2303**
Weber, H. E., design methods for control systems, **261**
Weber, J., quantum theory of damped oscillator and noise, **2602**; vacuum fluctuation noise, **2603**
Weber, Joachim, macrostructure of amorphous Se, **2971**

Weber, K. H. R., normalization of frequency dependence in circuit theory, **2024**
Webster, F. D., transmitters in American cable and radio system, **3386**
Webster, J. C., and P. O. Thompson, responding to two overlapping messages, **2838**
—— with others, responding to one of two simultaneous messages, **2837**
Webster, W. M., variation of junction-transistor current amplification factor with emitter current, **2798**
—— with others, tacitron, low-noise thyratron, **3732**
van Weel, A., measurements of phase angles, **1855**
van de Weg, H., quantizing noise of Δ-modulation system, **1564**
Wegmann, L., low-distortion lens for electron microscopes, **3652**
Weill, G., with J. C. Simon, longitudinally radiating aerial, **20;** propagation of e.m. waves along dielectric line, **1308**
Weinberg, L., *RLC* lattice networks, (**C**)**359,** synthesis of, **1332,** unbalanced, **1333;** synthesis of transfer functions, (**D**)**1704**
Weiss, A. A., structure of F region, **727;** solar tides in F_2 region, **1421**
Weiss, H., coaxial cable with helical outer conductor, **621;** electrical properties of InSb, **2707**
—— with others, electrical properties of InAs, **3268**
Weiss, Harold, significance of receiver errors to colour reproduction, **3700**
Weissfloch, A., short-circuit pistons in the design of junctions and directional couplers, **2850**
Weisshaar, E., and H. Welker, magnetic blocking layers in Ge, **3590**
Weisskopf, V. F., with F. Villars, scattering of e.m. waves by turbulent atmosphere, **2747**
Weizel, W., calculation for sparks with R and L in circuit, **698**
Welch, H. W., Jr, travelling-wave magnetron frequency characteristics, **585**
Welch, P., with P. A. Handley, valve noise due to electrode movement, **1970**
Weldon, J. O., with others, very-high-power long-wave station, **3357**
Welker, H., new semiconducting compounds, **1454, 1798**
—— with E. Weisshaar, magnetic blocking layers in Ge, **3590**
Welkowitz, W., and W. J. Fry, characteristics of radiating variable-frequency crystal systems, **2281**
Wellard, C. L., measuring h.f. resistors, **204**
Wells, H. W., F scatter at Huancayo and radio-star scintillations, **3214**
Wen Yuan Pan. See Pan, Wen Yuan.
Wendel, G., demonstration of electroluminescence, **377**
Wendling, H. F., four-beam c.r. tube, **2270**
Wengenroth, R. D., with D. Dettinger, waveguide spark gap, **800**
Werner, W., with W. Holm, television-receiver i.f. according to C.C.I.R. standard, **2520**
—— with F. Kerkhof, Television, (**B**)**573**
Wernholm, O., with E. Smårs, design of strong-focusing electron synchrotron, **3646**
Wesenberg, C. L., with F. J. Lynch, instrument for measurement of very high resistance, **2729**
West, J. C., and J. L. Douce, frequency response of nonlinear feedback systems, **3684**
West, W., facilities for experimental work in the Engineering Department, **3429**
Westfold, K. C., collision effects in ionized gas, **115**
—— with others, galactic r.f. radiation, discrete sources, **2653**
Westmijze, W. K., studies in magnetic recording, **9, 324, 1287**
Weston, D. E., sound propagation, in tubes, **295,** effect of slip on, (**D**)**2552**
—— and I. D. Campbell, propagation of sound waves in tubes, **612**
Wexler, R., radar echoes from growing thunderstorm, **415**
Whalley, W. B., with others, signal overload relay for television receivers, **2243**
Wheeler, D. J., and J. E. Robertson, diagnostic programmes for the ILLIAC, **34**
Wheeler, D. W. R., equivalent Q of *RC* networks, (**D**)**672**
Wheeler, L. K., with R. O. Carter, code converters for interconnection of Morse and teleprinter systems, **2506**
Wheelon, A. D., summation of infinite series in closed form, **1843**
White, E. J., with J. H. Bryant, attenuation and power-handling capability of helical r.f. lines, **1666**
White, E. S., with M. H. Kronenberg, design of colour-television receivers, **1592**
White, G. S., coded-decimal-number systems for digital computers, **44**
White, R. C., with R. E. Booth, valve frame grid for automatic production, **3410**
White, R. E., coaxial-to-helix matching sections for travelling-wave valves, **1616**
White, W. D., nonlinear filters, (**D**)**1338;** circular radar cuts rain clutter, **2100**
Whitehead, E. D., and J. Walsh, radio telemetry, (**D**)**1523**
Whitehead, J. B., D. L. Birx and C. F. Miller, electric strength of air at r.f., **2628**
Whitehead, R. C., programme-fading circuit, **1915**
Whitehead, S., progress in dielectrics, **1839**
Whitmore, E. J., with D. H. Pringle, gas-discharge tubes for microwave attenuation, **918**
Wick, R. F., field problem of Ge gyrator, **3161**
Widdicks, J. A., with F. H. Goldsmith, mains-operated psophometer, **805**
Wieder, H. H., with M. Apstein, capacitor-modulated f.m. system, **280**
Wieland, J., with G. Busch, mechanism of conduction in grey tin, **1475**
van Wieringen, A., with others, thermal conversion of Ge, **435**
Wiese, H., geomagnetic bay disturbances and their nonuniform induced components, **2659**
Wiesner, J. B., with others, noise in c.w. magnetrons, **579**
Wiesner, R., and H. W. König, cathode boundary conditions and noise minima in electron beams, **2271**
Wiggins, T. A., with others, velocity of light derived on band-spectrum method, **2619**
Wijn, H. P. J., domain walls in ferroxdure, **179;** properties of ferrites, **3608**
—— with others, measurement of properties of ferroxcube, **207**
Wikström, S., studies of heterocharges of electrets, **1071, 3242**
Wild, J. P., J. D. Murray and W. C. Rowe, evidence of harmonics in spectrum of solar radio outburst, **391**
—— J. A. Roberts and J. D. Murray, radio evidence of ejection of fast particles from sun, **2377**
Wilde, H., valve oscillators with voltage-controlled frequency dependence, **2041**
Wiles, S. T., and A. B. McLay, diffraction of 3·2-cm waves by cylinders, **3538**
Wilhelm, J. F., with others, improvements in R.C.A. three-beam shadow-mask kinescope, **1227**
Wilkes, M. V., can machines think?, **23**
Wilkins, A. F., story of radar, **1432**
Wilkinson, M. K., field emission from W, **761**
Wilkinson, S. H., radio survey technique, **1553**
Willardson, R. K., with others, Hall coefficient in Ge, **2975**
Willenbrock, F. K., and N. Bloembergen, paramagnetic resonance in n- and p-type Si, **1080**
William, E., distortion by *RC* sections, **2032**
Williams, C. E., with others, survey of tropospheric refractive-index measurements for U.S. regions, **2662**
Williams, D. R. W., and R. D. Davies, measurement of distance of radio stars, **3205**
Williams, E. M., with T. J. O'Donnell, impedance transformations in band-pass filters, (**A**)**1712**
Williams, E. S., with F. L. Hermach, multirange a.f. thermocouple instruments, **3300**
Williams, F., with others, technical arrangements for the Coronation broadcasts, **2231**
Williams, F. C., and others, advances in c.r.-tube storage, **985**
Williams, H., with R. J. Halsey, Birmingham/Manchester/Holme Moss television-cable system, **1195**
Williams, H. B., with A. J. Hatch, secondary-electron resonance mechanism of low-pressure h.f. gas breakdown, **2629**
Williams, H. J., and others, stressed ferrites having rectangular hysteresis loops, **2586**
Williams, M. O., assessment of core-material variability, **183**
Williams, N. T., with R. Kompfner, backward-wave valves, **586**
Williams, R. A., with J. W. Tiley, surface-barrier transistors, **896**
Williams, S. E., and V. Maslen, spectrum intensities and r.f. noise in d.c. H arc, **2070**
Williams, W. E., diffraction by parallel planes, **2908**
Williamson, A. G, developments in frequency-shift keying and radio teleprinter systems, **3035**
Williamson, E. M, with H.T. Flint, theory of electron, **2066, 3188**
Williamson, J. C., steels for permanent magnets, **1489**
Williamson, R., with C. D. Florida, cold-cathode scaling unit, **2593**
Williston, R. L., with H. J. Riblet, X-band rotary joint, **629**
Wilmotte, R. M., reception of f.m. in presence of stronger signal, **1899**
Wilson, B., design of v.h.f. link radio equipment, **851**
Wilson, G. W., domain structure of Ni single crystal, **765**
—— with L. F. Bates, Bitter figures on single crystal of Ni, **764**
Wilson, L. D., with S. M. Oster, e.m. clutch for digital computers, **45**
Wilson, O. B., Jr, and R. W. Leonard, measurements of sound absorption in aqueous solutions, **2286**
Wilson, R., constancy of photomultiplier gain, **1957**
Winch, G. T., aspects of colour rendering in television, (**D**)**3368**
Wingrove, E. R., with others, resonant-dielectric-amplifier frequency response, (**A**)**2903**
Winkler, U., with G. Busch, conductivity of intermetallic compounds, **1471**
—— with others, properties of Mg_3Sb_2, **3591**
Wisbar, H., u.s.w. extended-range propagation, **2201**
Wiseman, G. G., and E. G. Linden, electrets, **1443**
Wissing, F. N., with H. Hertwig, valve generator for low frequencies, **866**
Witt, R. P., with R. D. Elbourn, SEAC and DYSEAC circuit techniques, **39**
Wlérick, G., CdS, variation of photoconductivity of, **3266,** deep traps and photoelectric signal in, **3267**
Wolcott, H., with P. Pohl, audio sweep generator, **487**
Wolf, E., microwave optics symposium, **705**
—— with H. S. Green, scalar representation of e.m. field, **1739**
Wolfe, R., optical absorption in metals and semiconductors, **2106**
Wolfe, W. A., with T. E. Hull, inverting Laplace transforms, **2159**
Wolff, P. A., theory of plasma waves in metals, **1023**
Wolfstirn, K. B., with others, diffusivity and solubility of Cu in Ge, **2430**
Wolsky, S. P., with R. C. Ellis, Jr, new etches for Ge, **1470**
Wolzien, E. C., with others, coaxial connectors and their electrical quality, **2460**
Wood, C., with A. Lempicki, breakdown in Ge diodes, **3070**
Wood, C. B. B., fundamental aspects of telerecording, **1931**
Wood, G. W., with N. M. Schaeffer, semiconductors as logarithmic elements, **2879**
Wood, H. B., r.m.s. milliammeter for zero to video frequencies, **3301**
Wood, J. K., and G. B. Thurston, acoustic impedance of rectangular tubes, **934**
—— with G. B. Thurston, concentric orifice in circular tube, **935**
Woods, J., and D. A. Wright, thermionic emission for BaO and SrO films, **1969**
—— with D. A. Wright, bombardment of thin films with slow electrons, **1748**

Woodward, A. M., with others, photoeffects in Ge, **748**
Woodward, J. G., with others, recording and reproducing television signals, **2517**
Woolley, J. C., with others, magnetic viscosity in precipitation alloys, **3272**
Wooster, C. B., and F. R. Tew, radio propagation survey, **234**
—— with M. O. Felix, subscribers' radiotelephone, **3040**
Wooster, W. A., properties and atomic arrangements in crystals, **456**
Workman, E. J., F. K. Truby and W. Drost-Hansen, electrical conduction in halide-contaminated ice, **2966**
Works, C. N., and T. W. Dakin, dielectric breakdown of SF_6, (**A**)**198**
Worswick, T., with A. M. Spooner, special effects for television, **561**
Woschni, E. G., effect of unbypassed screen-grid resistors, **1358**
Wray, D., outline of British television system, **271, 873, 2241**
Wright, B. T., magnetic deflector for bevatron, **3324**
Wright, D. A., slow electron bombardment in thermionic valves, **2263**
—— and J. Woods, bombardment of thin films with slow electrons, **1748**
—— with P. N. Daykin, oxide cathodes in accelerating fields, **3407**
—— with J. Woods, thermionic emission from BaO and SrO films, **1969**
Wright, G. T., and G. F. J. Garlick, characteristics of radioluminescence in crystals, **2112**
Wright, J. B., with A. W. Burks, theory of logical nets, **38**
Wright, K. A., with others, annealing bombardment damage in Ge, **1469**
Wright, M. A., with others, Hg-delay-line storage system for ACE computer, **61,** (**D**)**2012**
Wright, R. W., with others, multiple stratification of F layer at Ibadan, **2668**
Wu, Ta-You, with E. Bauer, origin of E layer, **1764**
—— with H. E. Moses, dissociation of O_2 in upper atmosphere, **1053**
Wulf, O. R., production of glow discharges in ionosphere, **1770**
Wyatt, L. A., equivalent Q of RC networks, (**D**)**672**
Wylie, F. J., marine radar, for preventing collisions, **152,** survey of progress in, **2101**

Yada, K., with T. Hibi, high-resolution replicas, **3328**
Yadavalli, S. V., valve noise for long transit times, **3412**
Yager, W. A., with others, temperature dependence of resonance line width in Ni-Fe ferrite, **2446;** spin resonance of donors in Si, **3254**
Yamanaka, C., electret, **3241**
Yaroshetski, I. D., with A. R. Shul'man, secondary emission from thoria, **3529**
Yaroslavski, L. I., and A. Yu. Lev, frequency spectra of tone telegraphy systems, **3354**
Yarwood, J., and D. H. Le Croissette, d.c. amplifiers, **1357**
Yasuura, K., with Y. Oono, synthesis of networks with n pairs of terminals, **3158**
Yates, J. G., with C. W. Oatley, bridges with coupled inductive ratio arms, **1860**
—— with K. F. Sander, mapping electric fields in electrolyte tank, (**D**)**1146**
Yin, H. B., and T. U. Foley, filters using coaxial-line elements, **2338**
Yocom, W. H., with others, beam focusing with periodic permanent magnets, **2546**
Yokota, I., conductivity of Cu_2S, **1119**
Yonezawa, T., with H. Hojo, change in geomagnetic declination accompanying intense E_s ionization, **410, 2943**
Youla, D. C., estimating continuous-modulated intelligence corrupted by noise, **3031**
Young, D. R., with M. E. Drougard, domain clamping effect in $BaTiO_3$ single crystals, **3245**
Young, G. O., with B. Gold, response of linear systems to non-gaussian noise, **3031**
Young, J. A., Jr, and E. A. Uehling, tensor formulation of ferromagnetic resonance, **2635**
Young, L., hybrid-ring method of simulating higher powers than are available in waveguides, **2476**
Young, N. H., automatic control system with memory, **884, 1600**
Yousef, Y. L., and R. Kamel, vibrating-needle electrometer, **2177**
Yowell, E. C., with others, SWAC, **31**
Yu, Y. P., zero-intercept phase comparison meter, **484**

Zaccai, R., with others, losses in parallel-wire lines, **2311**
Zaccheroni, E., with G. Francini, RC oscillator, **1345**
Zadeh, L. A., nonlinear filters, (**D**)**1338**
—— with J. R. Ragazzini, analysis of sampled-data systems, **1189**
Zaezdnyi, A. M., spectrum width in f.m. and ph.m., **3351**
Zaikova, V. A., and Ya. S. Shur, dependence of coercivity on thickness of laminations, **2444**
Zaitsev, A. A., with Kh. A. Dzherpetov, striated h.f. discharge, **3524**
Zalm, P., and H. A. Klasens, 6100-Å band in Zn_2SiO_4-Mn, **1441**
—— G. Diemer and H. A. Klasens, electroluminescent ZnS phosphors, **2962**
—— with others, determination of decay times of phosphors, **1503;** Mn emission in ABF_3 compounds, **1785**
Zamanakos, A. S., with S. F. George, comb filters for pulsed radar, **2884**
Zanobetti, D., transient period of skin effect, **382;** impedance to current pulses, **383**
Zanotelli, G., anomalies of F_2-layer critical frequency during eclipse, **1422**
Zawels, J., transistor as mixer, **1898**
Zeiger, H. J., with others, directional properties of cyclotron resonance in Ge, **2423**
Zemanek, H., pulse frequency multiplication and division, **3506**
Zemanian, A. H., approximate method of evaluating integral transforms, **2158;** time and frequency responses of networks, **2331**
Zenel, J., with others, recording and reproducing television signals, **2517**
Zenner, R. E., status of magnetic recording, **1291**
Zepler, E. E., harmonic distortion and negative feedback, **2050**
Zhabotinski, M. E., fluctuations in oscillators, **3501**
—— and D. A. Lisichkin, quartz generators with negative feedback and inertial nonlinearity, **2889**
Ziegler, W., bridge-stabilized oscillator with complex amplification factor, **3169**
van der Ziel, A., shot effect in Ge filaments, **171;** shot effect in semiconductors and flicker effect in cathodes, **605;** modified theory of production of secondary electrons, **1029;** shot and partition noise in junction transistors, **3393**
Zimmerman, W., III, Ga purification by single crystal growth, **2449**
Zins, G. M., developments in ignitrons, **861**
Zito, G., 723 A/B reflex klystron performance, **3180**
Zitta, R., with others, laboratory receiver for study of N.T.S.C. system, **1229**
Zitter, R. N., with others, photoeffects in InSb, **3233**
Zoellner, W. G., with others, absorption of mm waves in dielectric solids, **1840**
van Zoonen, D., delay in build-up of halogen-quenched counters, **1880**
Zotov, T. D., and Ya. S. Shur, magnetoresistance of single crystals of transformer steel, **174**
Zschau, H., television optics, **1932**
Zucker, A., with R. J. Jones, sources of multiply charged N ions, **3642**
Zückler, K., modification of conductivity of semiconductor films, **1452**
Zverev, V. A., modulation method of measurement of ultrasonic dispersion, **1639**
Zwicker, E., audibility of nonsinusoidal variations of pitch, **3;** variation of audibility thresholds by masking, **305;** masking of narrow-band noise by sine waves, **3111**

SUBJECT INDEX

Absorption, (See also Acoustics; Wave propagation)
acoustic, in aqueous salt solutions, measurement of, **2286**
by electronic transducing system, **1654**
by gas-bubble screens in water, **933**
in gas-filled spherical resonator, **1642**
in materials and structures, schlieren method for study of, **2291**
by panels combined with resonators, **2556**
by perforated porous tiles, **2843**
by porous layer with perforated facing, **2290**
by resonance-type absorbers in water, **952**
coefficient, acoustic, measurements at research centre for cinematography in Rome, **1655,** nomogram for reverberation-chamber method of determining, **3443**
ionospheric. See Ionosphere.
microwave, of gases, measurements of, **1747**
in O_2, Zeeman effect and line width in, **2372**
by substituted benzenes, **2373**
ultrasonic, in liquids, heating effect of, **4, 5,** viscosity as a factor in, **306**
in organic liquids, measurements of, **1274, 1275**
Accelerometers, $BaTiO_3$, Washington symposium on, **489**
wide-range, N.B.S., **3635**
Acoustic systems, electrical equivalents for, transformer couplings in, **920**
Acoustics, (See also Absorption; Broadcasting studios; Impedance; Sound; Television studios; Ultrasonics)
anechoic chamber for sound and short e.m. waves, **942**
of auditoria, 'directional diffusion' in, **311**
of churches, measurements on two Roman basilicas, **951**
of concert halls, in Great Britain, subjective comparison of, **6**
of Royal Festival Hall, London, **312**
of doorless telephone booths, triangular design for improvement of, **2844**
of halls, models for investigation of, **616**
of halls and studios, empirical criterion for, **1657**
international congress, Delft, 1953, **919**
measurements, use of variable-gain amplifiers in, **1978**
properties of granular substances under shear-vibration excitation, **2274**
of rooms, with absorbent walls, **1980**
frequency irregularity and 'directional diffusion', measurement of, **3442**
normal-frequency statistics and excitation statistics, **3114**
suppression of echoes by polycylindrical systems, small-scale-model experiments on, **2557**
survey of, **950**
Aerial arrays, design of, exact method for, **3135**
dipole, matching arrangements for, **3463**
high-resolution, with crossed arrays of dipoles, for radio astronomy, **633**
interferometer-type, for radio astronomy, **333**
linear, gain of, **1996**
radiation patterns of, computation of, **1683**
with reflector and tailwire, application of four-terminal-network theory to, **1682**
rhombic, stacked, mutual impedance of, **2571**
ring-type, comprising tangential or radial dipoles, **1994**
slotted-waveguide, with automatic de-icing, **974**
effects of slot coupling in, **2572**
square, u.s.w., wide-band, **3464**
Tchebycheff-type, current distribution in, calculation of, **634, 1681, (D)2569**
excitation coefficients and beam widths of, **331**
with very high directivity, design of, **19**
Yagi, amplitude-phase correlation of currents in, **3466**
theory of, **2314, 3136**
Aerials, (See also Lenses, microwave; Transmission lines)
aircraft, design of, **1995**
design of radomes for, **975**
electrically small, measurement techniques for, **1680**
u.h.f., for navigation aids, dual systems, **2568**
of arbitrary form, direction of maximum gain and stationary polarization of, **3132**
Beverage wave, theory and characteristics of, **1997**
biconical, symmetrical, with arbitrary cone angle, **1679**
cavity, bandwidth of, **2862**
cm-λ, measurement methods for, **1127**
corner-reflector, measurements on, **1999**
slot, radiation patterns of, **3139**
theory of, **3470**
corrugated-surface, theory of, **2853**
cylindrical, with noncircular cross-section, equivalent radii of, **969**
dielectric-line, with periodic structure, analysis for, **1308**
dipole, back-scattering cross-section of, comparison method of measurement of, **2310**
interaction with e.m. wave, **972**
radiation from, theory of, **1678**
vertical, radiation over stratified ground, **332**
directive, gain and effective area of, determination of, **18**
linear and plane, maximal directivity coefficient of, **2567**
for long-wave relay stations, **3042**
loop, using ferrite rods, **3134**
microwave, calculations for, **3469,** diplexing, **3467**
Aerials, directive, with parabolic-cylinder reflector, analysis of field of, **2867,** wide-band, high-efficiency, **2865**
with parabolic-torus reflector, **335**
with plane reflector, analysis for, **2866,** gain of, **2565**
with reflectors, diffraction pattern of, calculation of, **(A)704, 1998,** having phase-shifting ends, **21**
end-fire, artificial-dielectric, dm-λ, **20**
with feeder, working gain of, **3462**
half-wave and full-wave pairs, back-scattering cross-section of, **2312**
helical, with diameter small compared with λ, **1304, (C)2315**
horizontal, field of, rigorous theory of, **1989**
horn, with lenses or reflectors, characteristics of, **637**
small, gain of, **636**
linear, integral equation of, solution of, **1675**
theory of, **2309**
thin, distribution of current in, **1302**
and optical systems, comparison of operation of, **630**
polarization of, chart for determining, **965**
push-pull, class-B, with output transformer, nonlinear distortion in, **1236**
radar, torque requirements of, **2573**
radiation mutual-coupling factor of, **2859**
radiation patterns of, automatic recorder for, **970**
minimum range for, **3459**
slot, field distribution for given directional characteristic, computation of, **3468**
microwave, coaxial-line, **973**
'skeleton', for 2-m band, **2858**
theory of, and Babinet's principle, **635**
travelling-wave, attenuation and phase constants for, **1306,** propagation constant and field pattern of, **1307,** properties and design of, **334**
standard definitions on, 53 I.R.E. 2.S1, **631**
television, receiving, band-III, measurements on, **3461,** for band-III, requirements of, **1676,** for bands I–V television and v.h.f. sound, **17,** u.h.f.-v.h.f., switch-tuned, **2313**
transmitting, B.B.C., impedance specification for, **3460,** u.h.f., giving uniform coverage, **2566,** vertical radiation patterns of, **1303**
theories of, comparative survey of, **1301**
transmitting, combined, for television and u.s.w. broadcasting, **16**
long-wave, wide-band, folded-unipole, at Allouis, **1677**
rhombic, design of, **2570**
u.s.w., wide-band, double-V, for d.f., **3465**
vertical, on circular ground screen, impedance of, **2308, 2860**
waveguide, with inclined open end, **3138**
open-ended, calculation of radiation from, **1305**
with passive radiating systems, theory of, **1684**
with thin aerials or slots, **2863**
whip, for mobile operation, design of, **632**
Aether drift, experimental investigation of, standing-microwave method for, **1726, 2618**
Alloys, Cu-Ni, resistivity of, **3575**
ferromagnetic. See Ferromagnetic materials, alloys.
of precise composition, preparation of, **1493**
thermoelectric power of, **1480**
Altimeters, f.m., low-noise, **1434**
Ammeters. See Meters.
Amplifiers, (See also Circuits)
a.f., low-noise, cascode, **2612**
pentode, charts for design of, **689**
power, using miniature triodes, **2895,** transformerless, **1722,** using transistors, **1247,** 60-W, high-quality, **2611**
push-pull, using transistors, **70, 2617**
RC, negative-feedback, equivalent-filter theory for, **1719**
using transistors, design of, **2059, 2902**
Williamson-type, using tetrode output valves with local feedback, **370**
a.f. and sub-a.f., feedback, selective, **1362**
band-pass, design of, pole-and-zero method in, **1713,** and stability of, **1720**
for f.m., alignment of, **481**
variable-bandwidth, **3510**
cascode, for television-receiver h.f. stage, using PCC84 double triode, **1621**
cathode-coupled, graphical method for study of, **2052**
cathode-follower, with very high input impedance and very low input capacitance, for 10^2–10^4 c/s, **2053**
d.c., using junction-type transistors, **1367**
based on magnetic modulator, **(D)1012**
using magnetic second-harmonic converter, **688**
mains-supplied, linear-response, **2345**
negative-feedback effect of unbypassed screen-grid resistors in, **1358**
parallel-T, low-drift, wide-band, **(D)95**
survey of, **1357**
using temperature-compensated transistors, **2060**
for voltages down to 10^{-9}V, **368**
d.c. to >30 kc/s, stable, for biological applications, **3511**
dielectric, design of and $(Ba\text{-}Sr)TiO_3$ capacitors for, **1368**
frequency response of, effect of carrier frequency on, **2903**
materials and circuits for, **100**

Amplifiers, direct-coupled, power supply with low-shunt-capacitance transformer for, **3362**
distributed, for steady-state application and for waveform amplification, **1359**, (D)**3176**
wide-band, theory of, (D)**1721**
with 100-Mc/s bandwidth, **2897**
feedback, gain stability of, **1361**
galvanomagnetic, theoretical and experimental investigation of, **3179**
grounded-grid, dm-λ, using disk-seal triodes, **690**
u.h.f., stability of, **371**
i.f., for radar and television, neutralization of pentodes in, **97**
using transistors, design of, **2056**
wide-band, negative-feedback design technique for, **1009**
line, feedback, duplex, design of, **3178**
for Swiss coaxial-cable carrier-current systems, **1572**
magnetic, amplification of small alternating voltages with, **3512**
as analogue-computer components, **62**
analysis of, **372**
core materials for, evaluation of, **466**
design of, **99**
fast-response, (A)**1364**
with and without feedback, **98**
high-speed, new types of, **2614**, with preset control, (A)**2054**
for multiplication and division, (A)**1723**
parallel-connected, analysis of, **2055**
response time of, device for improving, **1011**, measurement of, **2722**
self-saturating, instability of, (A)**1365**
single-core, analysis for, (A)**2900**
single-phase, self-saturated, analysis for, **2613**
with square-loop core materials, theory of, **2615**
using standard inductors, **1010**
survey of circuits and applications, **691**
3-phase transductor circuits for, (D)**657**
magnetic-inverter, for low-input-power d.c., **73**
and mixers, narrow-band, current feedback for stabilization of, **2885**
negative-feedback, harmonic distortion in, **2050**
low-noise, for 10–500 kc/s, **1363**
noise factor of, comparison method for determination of, **1008**
positive-feedback, high-fidelity, for recording bioelectric potentials, **1360**
pulse, using multivibrator principle, **2051**
regenerative, using point-contact transistor, **96**
with short rise time, using electron-multiplier valves, **3507**
RC-coupled, h.f. compensation of, **3177**
pulse response of, **2894**
selective, for 6·25 c/s, design of, **2896**
semiconductor, design principle based on negative-resistance and directional properties in, **2901**
for sound programme chain, B.B.C., **3508**
using surface-barrier transistors, **692**
using transistors, of junction type, gain-stabilized, **1366**
single- and two-stage, **2346**
temperature stabilization of, **2616**
transient response of, **342**, **1326**
two-stage, design of, **2058**
of Type CK-722, **2597**
unmatched, with very high gain, **3513**
variable-gain, use in acoustic measurements of, **1978**
v.h.f., noise factor of, **369**
v.h.f. and u.h.f., noise in, reduction by feedback of, **2899**
video, design charts based on transient response for, **1231**
l.f. compensation of, **2609**, **2898**
wide-band, using secondary-emission valves, **367**
stagger-tuned, design of, **3509**
tuned, design of, **1354**

Analogues, electrical, **55**

Analysers, for elliptically-polarized-vibrations in circular waveguides, **1500**
frequency-spectrum, for radiotelegraph signals, **3306**
for range 100 c/s–100 kc/s, **2474**
r.f. and a.f., with c.r.o. indication, **3305**
pulse-amplitude, for high counting rates, **1323**
high-speed, stable, multichannel, **2016**
trigger circuits for, **3486**

Antiferromagnetism, survey paper on, **2920**

Astronomy, radio. See Radio astronomy.

Atmosphere, (See also Ionosphere)
conductivity of, over Pacific Ocean, measurements of, **2401**
electrothermal convection in air, **3518**
glow of night sky, determination of, **2675**
at 1–3μ λ, **3558**
ion concentration in nonequilibrium system, **2388**
microwave refractive index of, analogue computer for solution of equation for, **1760**
survey for U.S. regions, **1759**, **2662**
variations of, measurements of, **718**
ozone in, daily variation of, at low latitudes, **723**
ozone distribution, vertical, during lunar eclipses, **402**
upper, conductivity of, radiosonde measurements of, **2093**
dissociation of O_2 in, **1053**, **2389**
equilibrium height distribution of NO in, **2087**
O_2 concentration in, vertical distribution of above 100 km, **3208**
rocket instrumentation for determining temperature of, **2933**
winds in, meteor-trail-echo measurements of, **1424**, **1425**, **3218**

Atmospheric electricity, effective separation of discharging points, **140**
enhanced field strength during solar eclipse, **3559**
field intensity, agrimeter for recording, **1061**
field-mill meters for, **3627**, with extended frequency range, **3303**
potential gradient, anomalies in, **2946**
review of research on, **2947**
and v.h.f. long-distance radio transmission, **2497**

Atmospherics, generated by convergence of fronts in upper atmosphere, **3560**
h.f.-reception method for locating sources of, **1065**
networks of stations for studying, methods of synchronizing observations at, **1064**
propagation of, waveguide theory of, **2306**
recording of frequency spectrum components over range 40 c/s–16 kc/s, **419**
and study of propagation of very long radio waves, **232**, **1545**
at v.l.f., observations of, **2948**
waveforms of, **1427**
variation with distance, **420**
whistling, investigation of, **142**
near 27 kc/s, enhancement of due to $H\alpha$ radiation from solar flares, **1406**

Atomic constants, h/e, new method of determination of, **2640**

Attenuation, measurement at 240 Mc/s–40 kMc/s, a.m. substitution system for, **803**, **1138**

Attenuators, constant-resistance types, design of, chart for, **1342**
logarithmic, using triode as variable-impedance element, **2038**
microwave, cold-cathode gas-discharge tubes as, **918**
low-power, comparison of materials used for, **678**
variable, mismatch errors in, measurement of, **2167**
rotary-waveguide, wide-band, for frequencies up to 50 kMc/s, **999**
precision, using movable resistive vane, **3008**

Aurora, absorption zone of, location of, **3224**
characteristics and theories of, **141**
correlation with geomagnetic and ionosphere variations, **2395**
magnetic disturbances and radio echoes associated with, **3221**
modulation of radio waves in, **832**
production of, by ionospheric winds, **1770**
radio echoes from, at h.f., **3223**
at station in geomagnetic latitude 56°, **416**
at v.h.f., **3222**
radio noise from, at 10 cm λ, negative result of search for, **417**
and related phenomena, theories of, **2387**
35- and 74-Mc/s echoes associated with, **1771**

Batteries, (See also Power supplies)
accumulator, recently patented developments in, **2230**
dry, using solid ionic conductors, **3048**
primary cells, recent patents on, **264**
standard, Weston, under current-generating conditions, **3359**

Beacons. See Navigation aids.

Blizzards, electrical phenomena associated with, **418**

Book notices and reviews, Advances in Electronics, Vol. IV, **3104**
Atomic Energy Research Establishment Report A.E.R.E. X/R 608, Mode-Separation Theory for Heavily Strapped Magnetrons, **607**
British Standard Glossary of Terms for the Electrical Characteristics of Radio Receivers B.S.2065:1954, **1902**
Communication Theory, **2775**
Convention Record of the I.R.E., **3103**
Electron Optics, **1976**
Electronic and Ionic Impact Phenomena, **711**
Electronic Measurements, **2733**
Flywheel Synchronization of Sawtooth Generators, **880**
Funk-Entstörung, **2211**
Die Ionosphäre, **421**
Kristalloden-Technik, **3425**
Luminescence and the Scintillation Counter, **1542**
Modulators and Frequency Changers, **1017**
Physics and Applications of Secondary Electron Emission, **2642**
Principles of Transistor Circuits, **1016**
Radio Research Special Report No. 24, Fundamental Processes of Electrical Contact Phenomena, **122**
Radio Research Special Report No. 26, Measurements of Atmospheric Noise at High Frequencies during the years 1945–1951, **842**
Small Transformers and Inductors, **3184**
Tables of Coefficients for the Numerical Calculation of Laplace Transforms, **2458**
Television, **573**
A Textbook of Radar, **3562**
Thermionic Valves, their Theory and Design, **3733**

Breakdown, in air, at 2–20 Mc/s, experimental investigation of, **2628**
in electron-attaching gases, limiting condition for, **1380**
in gases, conditions in streamer during passage from anode to cathode, **2627**
ionization processes in, **2358**
measurements of, **3191**
h.f., low-pressure, secondary-electron resonance mechanism, **2629**
spark, in SF_6, (A)**198**

Bridges, a.c., with c.r.o. indicator, **3630**
for measurement of resistance or capacitance, with coupled inductive ratio arms, errors due to imperfect coupling in, **1860**
resistance, sensitivity and output formulae for, (A)**1859**
with variable-capacitance ratio arms, for testing coaxial cables, **1668**

Broadcasting, of Coronation, technical arrangements for, **2231**
development of, **1920**
frequency-channel distribution for uniform coverage of large areas, **1911**
multiplex, f.m., from KE2XCC, **849**
Paris centre, architectural design for, **1179**
programme transmission over Type N carrier-current system, **2768**
studios, air-conditioning installations in, acoustical measurements on, **1656**
B.B.C., LH.1, acoustic design of, **3441**, Swansea, technical equipment of, **854**
control-room equipment, for binaural transmissions, **1579**, programme-fading circuit, **1915**
Radio Luxemburg, a.f. equipment of, **529**
u.s.w., multiple-programme system as first stage in television system, **3051**
networks for sound and television, planning of, **532**
v.h.f., in Austria, f.m. equipment for, **256**, planning of, **1180**
——stations, civil-defence system for random switching of, **1578**
f.m., remote-control system for, **3043**
long-wave, French, at Sélestat and Allouis, **886**
1-MW, Voice of America, **3357**
RIAS Berlin, monitoring and two-channel operation of, **1916**
v.h.f., in Western Germany, table giving frequency and power of, **853**
Wavre-Overijse, detailed description of, **2772**

Cables, coaxial, approximate formulae for calculations on, **3125**
conical connectors for, **3126**
using foamed insulation, **3279**
in Great Britain, **960**, **(C)3450**
impedance irregularities in, evaluation of at v.h.f., **1986**, pulse method for determination of, **2173**
for Italian communication network, **13**
manufacture, laying and splicing of, **1292**
production testing at very high frequencies of, **1137**
for television, echometer for testing, **1136**
transmission characteristics of, **961**
transverse Lecher wave in, **622**
0·375-inch, precision termination for use in testing, **2178**
h.f., characteristic impedance of, standardization of value of, **2299**
testing of, pulse echometer for, amplitude and phase equalizer for, **3623**
pulse methods for, **2464**
Calculators, (See also Computers)
slide-rule-type, for circuit parameters, **468**
Capacitance, of anchor ring, **3543**
and power factor, measurement of, **3007**
of spherical capacitor, calculation of, **1396**
Capacitors, electrolytic, Ta, C.S.F. types, **2023**
film-dielectric, performance of 6 types of, **2585**
fixed, miniature, design trends in, **2871**
metallization of paper for, **2992**
metallized-paper, breakdown and leakage resistance of, **2595**
reliable type of, specifications of, **2585**
mica, stability improvement by drying and sealing, **2022**
nonlinear, $BaTiO_3$, effect of minor constituents in, **2594**
$(Ba\text{-}Sr)TiO_3$, for dielectric amplifiers, **1368**
variable, design trends in, **3154**
micrometer, low-capacitance, **3155**
microphony due to vibration of plates, **75**
Carbon, formation of, from gaseous hydrocarbons, analysis of process of, **775**
Carrier-current systems, (See also Telegraphy; Telephony)
coaxial-cable, French, S900-101, **2217**
review of, **1571**
Swiss, repeaters for, **1572**
equipment for, French Post Office Type 51L, **1909**
unit construction of, **2508**
multichannel, interchannel interference in, **847**
power-line, multi-purpose, **(A)1570**
power and range of, **1569**
short-haul, **1177**
Philips STR 112, **3034**
Cathode-ray oscillographs, for crystal diode testing, **3631**
for display and measurement of envelope-delay distortion, **220**
with gated time marker, **2179**
multibeam, **1624**
portable, high-speed, with asymmetrical thyratron timebase, **1862**
for vector representation of sinusoidal voltages, **217**, **219**
Cathode-ray oscilloscopes, single-gun, four-beam, e.s., **2270**
voltage calibrator for, **218**
Cathode-ray tubes, (See also Counter tubes; Television)
cementing external metal mesh screens to, **916**
characteristic-curve index in, experimental determination of, **917**
for computer storage systems, advances in, **985**
formatron, with predetermined characteristic, **3731**
gun assemblies for, production of, **915**
with internal magnetic pole-pieces, for sound reproduction, **11**
for monitoring magnetic tape recordings, **1290**
monoscope, Type-K1043, for computer and other applications, **3100**
negative-ion component of beam in, **3421**
screens, comparison of front-viewing and back-viewing types, **2690**
destruction of luminescence by electron bombardment, **3420**
skiatron, development and performance of, **3419**
storage-type, direct-viewing, with half-tone display, **1975**
metrechon, **3418**
Cathode-ray tubes, with two deflection systems for high-speed pulse coincidence indication, **2822**
with very high writing speed, **1623**
with 4-quadrant target, as analogue multipliers, **2583**
Cathodes, (See also Electron emission)
capillary, metal, emission constants of, **589**
hollow, properties of, **1966**
indirectly heated, temperature of, method of measuring, **3405**
oxide, in accelerating field, emission from, **3407**
alkaline-earth, evaporation characteristics of, **1967**
BaO, evaporation from, effects due to films produced by, **2819**, regarded as mixed semiconductors, **1968**
BaO and SrO, evaporated, thermionic emission from, **1969**
(Ba-Sr)O, diffusion of Ba in, **590**, measurements of coating properties, **3408**
changes on activation, **2820**
conduction mechanism in, **3409**
emission of, decay of, due to adsorption of matter from anode, **2264**, relation to size and shape of carbonate crystals, **2265**
flicker effect in, theory of, **606**
interface impedance developed on aging, **1620**
interface resistance in, prevention of, **1256**
moulded, preparation and performance of, **1255**, **2818**, **3728**
negative-ion emission from, **2815**, **2816**
reactions with gases at very low pressures, **3406**
in receiving valves, life of, **(D)906**
space-charge effect in coating of, **591**, **3094**
spherical, hollow, I/V characteristic of, **596**
theoretical study based on chemistry of, **592**
ThO_2, with Mo base, emission from, **1258**
ThO_2 and ZrO_2, activation of, **2817**
ZrO_2, properties of, **1257**
Th and ThO_2, emission characteristics of, **1619**
Charging, contact, between a borosilicate glass and Ni, **2622**, **3516**
review of, **1377**
Circuit theory, (See also Networks, theory of)
normalization of frequency dependence in, **2024**
pass band and time constant, relations between, **664**
Circuits, (See also Networks)
a.g.c., cyclically gated, for navigation and telemetry receivers, **2677**
for modulator, **885**
amplifier, response to linearly varying input, **988**
clipping, with automatic control of mark/space ratio, **3175**
counter, bidirectional, for optical interferometry etc., **1527**
multidecade, using E1T counter tubes, **986**
multistable trigger chain, **3485**
coupled inductively, high-Q, analysis of, **1335**
d.c. restoring, for variable-width pulses, **679**
differentiating, using feedback amplifiers, **669**
Eccles-Jordan, design of, **1348**
feedback, using junction transistors, analysis of, **2874**
flip-flop, design of, graphical method for, **2589**
gate, using crystal diodes, **74**
integrating, for magnetic-field measurements, **2610**
Miller, as sawtooth-voltage generators, **94**
noise discriminator, using gating and integrating circuits, **2047**
nonlinear, graphical analysis of, **1329**
integral-equation technique for analysing, **2596**
oscillatory, damped, field quantization applied to, **2602**
phase-to-amplitude conversion, d.f., octantal error in, **146**
phase-shifting, r.m.s.-sensitive, **2324**
plated, flexible, manufacture of, **695**
printed, design of and manufacturing sources in U.S.A., **2064**
foil technique for, **374**
nitric acid as etchant for, **2906**
standards and conditions of test for, **2065**
pulse-selector, time-discriminating, **1007**
resonant, RLC, cascaded, response to pulse trains of, **2034**
for sine-wave to pulse conversion, using transistors, **2344**
switching, flip-flop, high-speed, bistable, **2329**, simple method of design for, **348**
random selector, **2591**
transistor, **(C)659**, speed of response of, **2592**
transistor, simplified calculations for, **2057**
transitron, direct-coupled, characteristics and applications of, **3182**
trigger, sensitive, with stable threshold, **3486**
valve, analysis of, using block diagrams, **(A)1346**, **2604**
Clocks, (See also Time)
atomic, and frequency standard using ammonia line, **3287**
quartz, annual fluctuations in error and frequency drift, **1848**
quartz-tuning-fork-controlled, **3616**
Coils, a.f., 'Maxwell' type, calculation of tapping points for, **1328**
variable, high Q, **346**
air-cored, for crossover networks, design of, **656**
with ferroxcube cores, tolerances and temperature coefficient of, **345**
h.f., air-cored, for high currents, design of, **2021**
iron-cored, approximate composite-straight-line characteristics for investigating, **649**
high-Q, not carrying d.c., design charts for, **72**
iron-free, with reduced external field, design of, **2020**
natural frequencies of, **(A)655**, **3483**
temperature fields in, relaxation-method computation for, **2587**
Communication, theory of, application of, to assessment of measurement accuracy, **794**, to comparison of modulation methods, **1174**, data transmission systems, **253**, **(D)1907**, to telegraphy, **1175**

Communication, theory of, bibliography of, **1566**
biological applications of, **252**
capacity of noisy channel, **254**
correlation in, **846**
distinction between data transmission and new knowledge, **3032**
entropy of German language, **3675**
error-correcting code for constant-data-rate systems, **3674**
fundamentals of, **1567**
introduction to, **844, 845**
least-squares-smoothing technique for separating signal from noise in, **2216**
negentropy principle of information in, **3033**
probability of events applied in telecommunication, **2214**
two types of error due to noise in binary-code systems, **2215**
——**equipment,** (See also individual subjects)
on aircraft, protection against atmospheric discharges, **1586**
compressor-expander system, of French Post Office, **1725**
marine, made in Eastern Germany, **258**
U.S.A., **531**
designed to operate under adverse conditions, reduction of contact potential at metal junctions in, **2348**
u.s.w. and s.w., tuning and channel-selection devices for, **1178**
v.h.f., using few crystals to control large number of frequency channels, **1913**
for v.h.f. radio link, design of, **851**
3–30-Mc/s, for aircraft and ship service, survey of, **3035**
——**systems,** (See also Carrier-current systems; Radio links; Radiotelegraphy; Radiotelephony; Telegraphy; Telephony)
air/ground, assessment of information content of messages, **2773**
channel allocation problems in, **2774**
record of contact during London-to-Christchurch flight, **1581**
v.h.f., United Air Lines network developments, **1182**
for aircraft, s.s.b., controlled-carrier, **2512**
'ambiguous-index', (D)**1568**
for binary-coded messages, comparison of modulation systems for, **1560**
for civil defence in U.S.A., **2764**
comparison of, in relation to Shannon's theory, **1906**
for Coronation ceremony and festivities, **251**
f.m., frequency-division multiplex, echo distortion in, **247**
marine, **1919**
microwave, in congested areas, planning of, **3676**
for mines, 20 kc/s–100 Mc/s, experiments on, **3683**
mobile, design and operation of, **3682**
multiplex, microwave, for Allied Forces in Europe, **850**
for New Jersey turnpike, **2769**
v.h.f., design of, **1914**
multichannel, delay networks for time selection in, **2509**
multiplex, time-division, synchronization of, **3677**
naval, problems and developments in, **1181**
p.p.m., adapted for simultaneous transmission of radio programmes, **3041**
s.s.b., polyphase technique for obtaining selectivity in, **1910**
statistical methods applied to, symposium on, **3031**
two-channel, using a.m. of opposite sign, **1176**
using double amplitude modulation, **1561**
3–30-Mc/s, for aircraft and ship service, survey of, **3035**
Components, design of, physics and chemistry involved in, **2062**
for severe conditions of use, design of, **651**
Computers, (See also Correlation)
analogue, a.c. network analyser for power systems, **3147**
aircrew training equipment using, **3477**
amplitude comparator for, **3474**
analyser of algebraic polynomials, **2582**
application to economic problems, **56**
d.c., partial drift compensation in, **2002**
differential analysers, electronic function generator for, **2868,** error analysis of, **643,** general-purpose, **1312,** comprising l.f. oscillator, **1321**
with discontinuously operating elements, **3475**
electric, operating principles of, **1314**
electrical resolvers, industrial applications of, **337**
electronic, for ratio of slowly varying potentials, **3148**
electronic differential analysers, engineering application of, **50,** solution of simultaneous differential equations by, **51**
for feedback control systems, **982**
high-speed, for product integrals, **1313**
input/output unit for, **49**
using magnetic amplifiers, **62**
multiplier for, using a.m.-f.m. circuit, **63,** using balanced modulators for, **1322,** beam-tube type, **2583,** electronic type, **1310,** high-speed, for time-sharing technique, **2319,** based on linear-to-logarithmic converter for, **3476,** using modulated pulses, **1309**
network analysers using transformers as multipliers, **983**
in noise studies, **52**
photoelectric integrator, **3149**
principles of, **55**
for determining pulse-width ratios, **976**
for quantity production, **644**
giving ratio between two input voltages, **2321**
resistance-network, for differential equations, **3143,** improved iteration method of operating, **2011**
scale factors for, **2318**
with servomechanisms, **646**
simulator for hydraulic servomechanism, (D)**981**
Computers, analogue, for solution of radio refractive-index equation, **1760**
for solving nonlinear partial differential equations, **2317**
stabilization of d.c. amplifiers in, **2013**
for summation of Fourier series, **3142**
survey of, **1311**
using thermal transducer, **2003**
analogue and digital, comparison of, **27**
solutions of boundary-value problems on, **2575**
analogue-to-digital converter for, **2576**
digital, ACE, Hg-delay-line storage system for, **61,** (D)**2012**
analogue-to-digital converters for, **46, 339, 645**
application of, in automatic telephone switching, **64,** in business accounting, **3140,** in logistics research, **35,** to physical problems, **1319**
arithmetic unit for, **2580**
automatic office installation, LEO, **3473**
Bendix differential analyser, **37**
binary counter with temporary storage facilities for, **42**
coded-decimal-number systems for, **44**
comparison of recent models, **642**
C.S.I.R.O. Mark I, Hg delay line storage unit for, **2578**
programme design for, **640, 641**
design of or-and-or pyramids for, **40**
digital-to-analogue converter, with shaft-rotation-angle indication, **3141**
divider with closed feedback loop for, **2322**
DYSEAC, special facilities provided in, **2320**
EDVAC, magnetic drum storage for, **53**
as elements in control systems, smoothing of observational data by, **48**
e.m. clutch for, **45**
flip-flop chains for decimal and duodecimal scales in, **2010**
Fosdic microfilm-reading input device for, **2004**
frequency analysis of, **1317**
high-speed, circuit technique for, **2009**
IBM Type-701, **29,** arithmetic unit of, **30,** system design of, **28**
ILLIAC, fault detection in, **34**
and information-handling systems, Boolean algebra applied to, **57,** (C)**1318**
introduction to, **22**
magnetic and dielectric-hysteresis elements for, **1320**
magnetic-drum technique for combined storing and reading, **43**
magnetic switching circuits for, **2581**
at Manchester University, **978, 979, 2577**
NAREC, circuits of, **33**
programme control of, **977**
programming for, **25,** influence on design of, **26**
punched-card reader for, **2008**
Remington-Rand Type 409-2, **36**
SEAC, design and operation of, **32**
SEAC and DYSEAC, circuit techniques used in, **39**
Se-disk rectifiers in, **3146**
serial, analogue-to-digital converter for, **47**
shift registers using transistors, **2869**
storage systems for, c.r.-tube type, **980,** c.r.-tube type, advances in, **985,** diode-capacitor elements for, **1315,** e.s., Williams type, automatic beam stabilization for, **1687,** magnetic and ferroelectric, **2579,** magnetic-core matrix, **59,** magnetic-drum, for automatic telephone switching, **65,** magnetic-drum, 'dead' programmes for, **54,** magnetic-drum, design chart for, **338,** based on photographic techniques, **66,** survey of, **41,** (C)**1316, 2005**
survey of capabilities and limitations of, **23**
SWAC, design and operation of, **31**
theory of logical nets applied to, **38**
UNIVAC, valve programme for, **647**
valve reliability in, **984**
non-numerical, and automata, survey of, **24**
relay-circuit analyser, **60**
statistical, application to industrial control, **3145**
Conduction, anomalous skin effect in anisotropic metals, **3521, 3522**
anomalous skin effect in metals, effect of relaxation on microwave measurements of, **2625**
evaluation of surface impedance, **1733**
in magnetic field, **2624**
and reflectivity of metals, **2626, 3523**
electronic, in solids, mechanism of, **2354**
in halide-contaminated ice, mechanism of, **2966**
at low temperatures, **1369**
Conductivity, of jet exhaust, measurements on, **3620**
of pressed powders, **2439**
of weakly ionized gas, subjected to oscillating electric and constant magnetic field, **1030**
Conductors, cylindrical, current distribution in, **3520**
impedance to current pulses, **383**
skin effect in, during transient period, **382**
linear, near boundary of two media, field of, **1040**
parallel to intersecting conducting planes, electric field of, **3189**
pulsed currents in, density distribution of, **2067**
temperature of, measurement of, based on noise in, **2480**
Conferences and conventions, acoustics, Delft, 1953, **919;** automatic regulation, U.S.S.R., 1953, **3637;** barium titanate accelerometers, Washington, May 1953, **489;** British Association Section A, Sept. 1953, recent progress in dielectrics, **779;** C.C.I.R., 6th Plenary Assembly, Geneva, 1951, recommendations of, **1587;** electron microscopy, London, Nov. 1953, **3330;**

Conferences and conventions, I.E.E. symposium on insulating materials, March 1953, **1123;** international electroacoustics, Netherlands, 1953, full proceedings, **1977;** ionization phenomena in gases, Oxford, 1953, **701;** I.R.E. National Convention record, **3103;** luminescence of inorganic phosphors, Cambridge, April 1954, **2958;** microwave optics, Montreal, 1953, **705;** radio astronomy, Jodrell Bank, July 1953, **714,** Washington 1954, **2378;** radio interference, London, 1953, **1556;** radio meteorology, Texas, Nov. 1953, **230, 2751;** rockets for exploration of upper atmosphere, Oxford, 1953, **130;** servomechanisms, San Francisco, 1953, **2776;** sound recording, Paris, 1954, **2560;** U. S. Navy symposium on tropospheric propagation, 1953, **503**
Contacts, carbon, relation between behaviour and structure of, **1113**
Control systems, (See also Electronic applications; Frequency control; Servomechanisms; Telecontrol)
analysis and design of, **261**
automatic, with 'memory' element, **884, 1600**
U.S.S.R. conference on, **3637**
feedback, analysis by root-locus method, **1184**
nonlinear, frequency response of, **3684**
synthesis by root-locus method, **1185**
on/off, design charts for, **533**
for optical scanning system, **2008**
process, electrical, (**D**)**1155**
use of statistical computers in, **3145**
sampled-data, analysis of, **1189**
Converters, (See also Image converters)
d.c./a.c., using thyratron inverter circuit, **2224**
using Type-FL21 thyratron inverter, **534**
Cores, (See also Coils)
for digital-computer storage devices, testing sense of flux in, (**A**)**2468, 3298**
ferrite, stressed, for switching and storage devices, **2586**
high-permeability, demagnetization coefficients of, **3152**
magnetized at two or more frequencies, iron losses in, **1492**
toroidal, ferrite, for computer storage devices, **2007**
metal-ribbon, for computer storage devices, field in, **2006**
for wide-band transformer, insulated by cataphoresis, **3612**
Correlation, in communication engineering, **846**
functions, computers for, **3144**
short-time, correlatograph for l.f. sounds, **58**
Wiener-Khintchine theorem, generalization of to nonstationary processes, **3286**
Cosmic radiation, r.f., (See also Radio astronomy; Solar radiation)
from cosmic-ray electrons, quantitative investigation of, **1397**
discrete sources of, brightness distribution over, **1754**
distribution of, **333**
nature of, **2380,** (**C**)**3206**
extragalactic, **1047**
from spiral nebula M.81, **1046**
galactic, attenuation by ionosphere of, **2397**
discrete sources of, with angular widths > 1°, **2653,** scintillations of, **1756,** supernovae as, **2083**
measurement of angular width of source of, **2657**
model representing sources of, **397**
sea interferometer for studying, **1755**
at 100 Mc/s, between declinations + 50° and −50°, **2654**
at 400 Mc/s, observation of galactic nucleus, **2932**
origin of, **125,** (**D**)**2379**
from Perseus cluster, **2652**
source in Cygnus I, fine structure of, **1410**
source in Gemini, accurate observations of, **1753**
sources in Cygnus and Cassiopeia, intensities at 22·6 Mc/s, **2651**
from supergalaxy, at 250 Mc/s, **394**
at 18·3 Mc/s, survey of, **2656**
at 18·3 Mc/s and 100 Mc/s, comparison of, **2655**
Cosmic rays, origin of, theory of, **2929**
Counter tubes, (See also Valves)
cold-cathode, decade, using asymmetrical cathodes, **1265**
decade, Type E1T, with ribbon beam, **603, 660**
for decade counting circuits, survey of, **1625**
Counters, using dekatrons, **350**
G-M, Ar-filled, mechanism of discharge in, **1538**
dead time of, effect on pulse-frequency indication, **3331,** measurement of, **228**
discharge and post-discharge phenomena in, X-ray investigation of, **1539**
electron transit times in, **2742**
with external cathode and methyl-alcohol filling, **1879, 2490**
halogen-quenched, build-up of, **1880,** with transparent films as cathodes, **501**
with mixtures of rare gas and organic vapour, **1540**
pulsed, response of, **2491**
review of principles and technology of, **2743**
self-quenching, temperature dependence of, **2741,** velocity of discharge propagation in, **2194**
starting potential of, **502**
particle, radiation-detection instruments using, design of, **3659**
review of developments in, **2193**
stochastic theory of, **1878**
proportional, dependence of output-pulse height on track orientation, **500**
pulse, circuit with correction for finite resolving time, **3318**
scaling unit, using cold-cathode tubes, **3487**
five-decade, using dekatrons, **2593**
Counters, scintillation, using anthracene crystal, efficiency of, **1160**
using photomultipliers, stabilization of, **1156**
for radioactivity prospecting, **1161**
Couplers, directional, using open-wire lines, **987**
Crystals, (See also Piezoelectric crystals; Quartz crystals)
aggregates with random nucleation, interface area, edge length, and number of vertices in, **458**
alkali-halide, colour centres in, survey of work since 1946, **2989**
diffusion in, effects of temperature gradients on, **1122,** (**D**)**1837**
electronic polarizability of, **1394**
growth of, tip-fusion method for, **2708**
ionic, energy of trapped electrons in, **1112**
lattice imperfections in, effect on properties of solids of, **1491**
physical properties of, and symmetry relations, **457**
polar, electron-lattice interaction in, **1395**
structure of, relation to physical properties, **456**
ZnS, grown by sublimation in H atmosphere, special properties of, **1097**
Current, direct, very small, measurement of, review of methods for, **1852**
induced, in conducting ribbon, by parallel current filament, distribution of, (**A**)**704, 1998**
standard, using magnettor principle, **2718**

Delay device, variable, using magnetic drum, **322**
Delay lines, (See also Transmission lines, delay)
ultrasonic, equivalent-network representation for, **989**
fused-quartz, **666**
metal, **2014, 2905**
Demodulation, a.m., synchronous systems, history of, **2207**
Demodulators, f.m., high-linearity, with one rectifier, **1895**
Detection, of signal with interference, by linear detectors, **3343**
of signals in noise, **1900**
statistical theory of, **3031**
Detectors, error-voltage, diode-bridge type, **3181**
microwave, diode, large transit-angle, **3096**
superregenerative, theoretical and experimental investigation of, **2761**
u.h.f., using magnetostrictive ferrites, **2904**
Diagrams, for electronic apparatus, technique of preparation of, **3428**
Dielectric constant, of amorphous Se, at λ 1 cm and 3 cm, **1790**
at cm and mm λ, measurement of, **801**
of condensa and epsilan, at tenth-mm λ, **464**
of gases, at u.h.f. measurement of, **1133, 1134**
of liquids, at cm λ, measurement of, **3621**
measurement of, substitution method for, **1132**
at mm λ, spectrometer for measurement of, **1135**
of plastics, variation with applied electric field, **752**
of semiconducting ferromagnetics, theory of measurement of, **2724**
of suspension of spherical particles of polystyrene in liquid, **159**
Dielectric properties, of ammonia, at cm λ, measurement of, **1854**
dielectric hysteresis and elastic after effect, experimental investigations of, **2963**
dielectric loss change (photodielectric effect), survey of work on, **2692**
of liquids, at dm λ, determination of, **2171**
r.f. Debye absorption, survey of, **2693, 2694**
of water and aqueous solutions, at microwave frequencies, **109**
Dielectrics. See Insulating materials.
Diffraction, acoustic, by circular aperture, **299**
of cm waves, by cylinders, **3538**
of e.m. waves, by aperture in plane conducting screen, **709, 2078**
by circular aperture, validity of approximate formulae for, **3536**
by disk, circular aperture or ellipsoid, **379**
near earth's surface, (**C**)**828**
by ideally conducting half-plane, **2351**
in irregular refracting medium, **1730**
by mountains, theory of, **229**
by parallel half-planes, **710**
by perfectly conducting wedge, **2077**
spheroidal-vector-wave-function solution of, **708,** (**C**)**2639**
by strip or slit, approximate solution for, **2350**
by strip-gratings, rigorous analysis for, **1374**
by wedges, in parallel-plate region, **1744**
by parallel planes, **2908**
of plane e.m. wave, by circular waveguide, **1020**
of pulse, by wedge, **378**
by sphere, taking account of surface wave, **3537**
theory of, review of, **2909**
Direction finders, c.r., bearings of two interfering transmitters determined by, **2096**
simplified type, for locating thunderstorms, **3226**
using cyclical measurement of phase, comparison with U-Adcock type, **143**
wave-interference errors in, **144**
elevated-aerial, effective polarization on, **145**
fixed-Adcock, errors in, **736**
on ships, influence of other aerials on board on accuracy of, **2403**
v.h.f., Type AD200, octantal error in phase-to-amplitude conversion circuit of, **146**
Direction finding, using pulsed transmissions, comparison with c.w. transmissions, **735**
u.s.w., wide-band double-V aerial system for, **3465**
Discharge tubes, (See also Valves)
cold-cathode, as microwave attenuators, **918**
glow, voltage-regulator, Types 85A1, 85A2, 7475 and S130, impedance/frequency characteristics of, **3101**
neon, for electrical measurements, **203**

Discharges, (See also Breakdown)
arc, field-emission-initiated, **1025, 1026**
hydrogen, r.f. noise produced by, **2070**
r.f. oscillations in, **389**
in astrophysical systems, **123**
in axial magnetic field, measurements of potential distribution in, **1378**
in compressed air or CO_2, between point and plane, **2917**
corona, between cylindrical electrodes, **2630**
electron liberation by positive-ion impact, **2356, 2357**
glow, in air at normal pressure, **2069**
theory based on hollow-cathode effect in, **3526**
h.f., electrodeless conductivity of, **2915,** growth of, **113**
measurement of admittance of, **205**
striated, **3524, 3525**
intermittent, decay of space charge in, **2068**
low-pressure, theory of positive column, **1381**
microwave, between coaxial cylinders, radial extent of glow in, **2916**
low-pressure, measurements of gas temperature of, **3423**
quantitative development of, **1734**
self-supporting, in transverse magnetic field, current/voltage characteristic of, **2914**
in space-charge field, electron-energy distribution in, **3192**
spark, effect of injecting ions in, **1379**
equation for, use of I.P.M.-Ott integrator for solving, **699**
initiation of, **385**
with R and L in circuit, calculation for, **698**
survey of recent work on, **384**
in transverse magnetic field, ignition mechanism of, **696**
ignition voltage of, **112**
Discriminators, frequency, linear, for u.h.f. f.m. radio links, effect of residual a.m. in, **237**
using triode as gated rectifier, **2347**
Distortion, definitions of various types, I.R.E. Standard 53 I.R.E. 4S1, **1693**
echo, of a.m. and f.m. signals, **245**
in f.m. multiplex R/T, **247**
of f.m. signals, evaluation of, **1325**
frequency, correction of, general method for, **1324**
harmonic, of f.m. waves by linear networks, **2503**
measurement of, **1509**
in negative-feedback amplifiers, **2050**
intermodulation, in power-law devices, formulae for, **650**
in rectifier modulators, **2531**
nonlinear, in class-B push-pull amplifier with output transformer, **1236**
of f.m. signals, **1689**
of f.m. wave passing through mismatched quadripole, **3164**
in gramophone reproduction, measurement of, **476**
measurement of, **1139,** comparison of harmonic and intermodulation methods for, **3624**
of N.W.D.R. transmitters, subjective investigations of, **3709**
phase, of f.m. signal due to carrier distortion, **3350**
of pulses, in coaxial line, reduction by frequency translation, **2298**
by RC sections, **2032**
of television-picture signals, **2515**

Electrets, carnauba-wax, experimental investigation of, **3241**
with heterocharges, experimental investigation of, **1071, 3242**
materials, theory and applications, **1443**
semipermanent polarization of, **107**
Electric field, induced in earth, due to variations in vertical component of geomagnetic field, **3547**
Electroacoustics, international congress, Netherlands, 1953, full proceedings, **1977**
Electrodynamics, classical, theory of action at a distance in, some consequences of, **3200**
Coulomb force and Ampère force, **2923**
based on field rather than potential, **2367**
formulation of laws in terms of conservation of circulation, **2075**
general equations for force between current elements, **2922**
theory based on force between charged particles, **2924**
variational formulation of multistream field equations, **387**
Electroluminescence, (See also Phosphors)
experimental results, theoretical interpretation of, **1728**
as illumination source, **3636**
of insulated semiconductor particles, mechanism of, **1787**
phase of brightness variations in alternating field, **2108**
theory of, **1373**
use of colour film for demonstrating, **377**
Electrolyte tank, accurate mapping of e.s. fields in, **(D)1146**
Electrolytes, a.c. space-charge polarization effects in, theory of, **1024**
Electromagnetic field, calculation of, Green's functions for, **(A)2912**
of dipole source, **3201**
due to line source adjacent to conducting half-plane, analysis for, **1745**
scalar representation of, **1739**
over stratified conductor, **1746**
Electromagnetic induction, in conducting sheet due to current-carrying loop, **119**
formulation of law based on 'flux line', **1034**
due to movement of material in magnetic field, **118, 388, 1035**
due to moving charge, **1740**
Electromagnetic theory, derivation of Maxwell's equations by statistical ensemble-averaging method, **1390**
general formulae for polarized media, **3198**
introduction of 'reaction' concept, **3199**
Electromagnetic theory, reciprocity theorems in, **1738**
substitute for Maxwell's tensor, **2368**
Electrometers, high-sensitivity, monofilar, **1511**
quadrant, portable, high-sensitivity, **806**
using tetrode valves, stabilization with respect to heating voltage of, **3006**
vibrating-needle type, **2177**
Electromotive force, developed by creeping Zn crystal, **1022**
measurement of, theory of, **1131**
Electron beams, with circular paths, analysis for, **1382**
focused, deflected, intensity distribution over spot, **2269**
focusing by space-periodic fields, **3099**
high-current, focusing of, multiple-magnetic-lens system for, **2262**
high-energy, bunch length in, measurement of, **1519**
inhomogeneous, space-charge waves in, **1945**
l.v., focusing of, by spatially alternating magnetic fields, **911**
in magnetic fields, 'Brillouin flow' taking account of thermal velocities in, **1028**
in narrow tubes, with magnetic focusing, calculation of current in, **903**
noise distribution in, and cathode boundary conditions, **2271**
with rotational symmetry, calculation of electrode shapes for, **2268**
space-charge-wave amplification by periodic change of beam impedance in, **2811**
space-charge-wave propagation in, transmission-line analogue for studying, **2810**
strip, constrained by magnetic field, electron trajectories in, **3078**
Electron emission, (See also Cathodes; Photoelectric emission)
exo-, and luminescence, parallelism between, **2907**
field-type, and gas adsorption, **576**
at medium field strengths, **3193**
from Ni single crystals, **2071**
space-charge effects in, **1027**
from W single crystal, experiments on, **761**
resulting from ion impact on Mo and C targets, **386**
from metals, work function for, **2073,** effect of oxide coating on, **1385**
secondary, Auger peaks in energy spectra of, **1386**
average yield for pyrex for Maxwellian electron energy distribution, **2632**
from BeCu, energy distribution of, **1481**
due to bombardment with multiple-charge ions, **1383**
from Cu crystals with Cu_4O crystal coating, energy distribution of, **2918**
effective depth of, **2363**
energy distribution of, circuit for determining, **3527**
field dependent, mechanism of, **774**
in glow cathodes with semiconducting layer, fatigue in, **2919**
from impurity semiconductors, **762**
ion-neutralization process in relation to, **700**
measurements of, inaccuracy due to positive-ion formation, **2361**
mechanism of, **2360**
of MgO single crystals, **114,** energy and temperature dependence of, **3194**
of Ni and Mo, **2362**
from semiconductors, **2132**
from soot, angular distribution of, **1946**
theory of, **1029**
from thoria, **3529**
time delay of, **(C)1601**
thermionic, anomalous, from W heated by high-current-density pulses, **3528**
work function of irregular metal surfaces, **2631**
Electron guns, for crossed-field devices, adiabatic theory of, **3727**
with nonrotational symmetry, theory of, **1262**
theoretical determination of electrode shape, **912**
Electron interactions, collective description of, in degenerate electron gas, **1375**
in metals, **1376**
in plasma, **1021**
Electron lenses, caustic surfaces of, measurement of, **823**
chromatic aberration of, **2487**
cylindrical, slotted, for analysing velocities, **3654**
e.s., coaxial-cylinder, axial potential of, **1877**
correction by departure from symmetry, **824**
cylindrical, symmetrical, potential distribution of, **3329**
three-electrode, axial potential of, calculation of, **2488**
univoltage, focal lengths of, determination of, **825,** properties of, **1158, 3651,** strong, trajectories in, **1159**
grid-type, focusing high-energy particles with, **227**
magnetic, aberrations due to mechanical defects, **1534**
image distortion due to pole-piece asymmetry in, **1157**
measurement of field in, **3658**
stigmator for, **2489**
rotationally symmetrical, calculation of paths in, **1537**
Electron microscopes, high-resolution, new principle for, **1876**
image formation in, **2740**
effect of specimen thickness and electron energy on, **2192**
low-distortion double projection lens for, **3652**
with magnetic objectives, effect of departures from rotational symmetry in, **3650**
photoemission-type, **3656**
secondary-emission type, for revealing magnetic inhomogeneities, **2739**
stereograms from, production of, **3657**
Type E.M.4, **3648**

Electron microscopy, application at A.E.I. Research Laboratory, **2740**
at Cambridge, **2740**
conference in London, Nov. 1953, **3330**
French work in during 1952–1953, **2740**
replicas for, high-resolution, preparation of, **3328**
shadowing technique for, **3653**
Swiss work in, **2740**
Electron motion, in electric and magnetic fields, **105, 1384**
Electron multipliers. See Photocells and Valves.
Electron optics, double focusing by two-magnet system, **498**
focusing charged particles, **3541**
magnetic and electric fields with cylindrical and mirror symmetry, **2191**
relativistic aberration functions in, **3649**
schlieren technique for studying e.m. fields, **1536**
shadow method of mapping magnetic fields, **2465**
wave-mechanics theory of, **499**
Electron spectrographs, e.s., developed from electron microscope, **3655**
Electron trajectories, automatic plotting of, use of electrolyte tank for, **3304**
numerical integrations of equation of, **1535**
Electronic applications, (See also Control systems; Heating; Photocells, applications of)
aircrew training equipment using analogue computers, **3477;** air-warfare game, **2187;** blind guiding device, **3641;** electrocardiology, resultant dipole of heart, **2735;** flying-spot scanner for studying visual perception, **1541;** mefal detector, simplified construction, ASDET, **3315;** microwave technique for observing commutator surfaces during operation, **2736;** monitoring high-speed phenomena, **3319;** nondestructive testing of materials, **3313;** in oil industry, **3660;** photoelectric device for indicating position of rotating shaft, **812;** pressure measurement in i.c.e., **3332;** short-time-interval measurement using two photocells, **3617;** tachometer, using cold-cathode tubes for visual display, **1153;** thermostat, with variable-duty-factor heating cycle, **3312;** vibration meter, self-contained, **3309;** vibration methods of testing, **1881**
Electronic engineering, developments in, **1267**
Electronic equipment, for aircraft, reliability of, improvement of, **609**
automatic assembly of, **694**
construction of, modern techniques for, **101**
manufacture of, importance of physics in, **897**
modular design and mechanized production in, **3432**
mechanized production of, N.B.S. methods for, **693**
temperature calculations for, **291**
Electrons, classical theory of, **2066, 3188**
and crystal-lattice vibrations, model for investigating interaction between, **108, 3517**
energy loss in passage through thin films, **2352**
high-energy, deflection in magnetized iron, **1041**
new classical theory of, **3187**
slow, effect of bombardment of thin films by, **1748**
motion of in air, with application to ionosphere, **106**
Electrophoresis, insulation of transformer-core tapes by, **3612**
in valve manufacture, **3720**
Electrostatics, field and induction of point charge in space, **2353**
Equalization, (See also Networks; Transmission lines)
comparison of time-function and frequency-function methods for, **2598**
Exhibitions, British Instrument Industries, London, 1953, **608;** components, Paris, 1954, **3426;** German Industries, Hanover, 1954, **3427;** German radio, Düsseldorf, 1953, **292;** Hanover Technical Fair, 1953, electrical measurement equipment at, **208,** radio, television and electroacoustic apparatus at, **293;** Leipzig fair, 1953, **610;** Lyons fair, 1954, Soviet radio equipment at, **3431;** Physical Society, 1954, **2272;** R.E.C.M.F., London, April 1954, **2063;** S.B.A.C., Farnborough, 1954, **3734;** 16th Salon national, Paris, 1953, radio and television at, **1171;** 20th Salon de l'Aéronautique, 1953, **1268;** 21st National Radio, London, 1954, **3735**

Faraday effect, cm-λ, experimental investigation of, **3202**
in ferrites, **995**
in waveguides and cavity resonators, **2987**
at microwave frequencies, medium-boundary effects in, **2927**
in waveguides containing anisotropic media, **1300**
Ferrimagnetic materials, ferrites, after-effects in, **3605**
as core materials for magnetic heads, **2846**
of Dy and Er, thermomagnetic study of, **3274**
fermalite, fernilite and fercolite, **1827**
ferromagnetic resonance of, **1832,** effect of anisotropy and relaxation phenomena on, **2713**
ferroxcube, measurement of properties of, **207**
ferroxcube IV, thermal effects accompanying magnetization of, **177**
ferroxdure, $BaO.6Fe_2O_3$, with preferred orientation, **184,** domain-wall displacements in, **179**
Gd, thermomagnetic study of, **3273**
magnetic phenomena in, **175**
magnetic resonance phenomena in, **2144**
magnetostrictive, as u.h.f. detectors, **2904**
Mg, dielectric behaviour of, **1107,** investigation by heat treatment, **1108**
Ferrimagnetic materials, ferrites, MgAlMn, having low loss at 4 kMc/s, **3607**
Mg-Mn, commercially available, **2146**
microwave Faraday effect in, **995**
mixed, cation distributions in, **2986**
mixed crystals of, spontaneous magnetization of, calculation of, **3606**
Mn, Mg and Co, magnetic susceptibility of, **2443**
modern developments in, **178, 1823**
Ni, mixed with nickel titanate, magnetic properties of, **2711**
Ni-Fe, temperature dependence of resonance line width in, **2446**
Ni-Zn, magnetic-dispersion spectrum of, **2710,** temperature dependence of magnetization of, **1488**
nickel ferrite aluminate, g factor of, **2985,** resonance absorption in, **2145**
nickel ferrite-aluminates and -gallates, **1830**
properties and applications, **1487, 3608**
rare-earth, influence of ionic diameters on properties of, **1109,** molecular theory of, **3275**
relaxation of permeability in, effect of dimensions and compression on, **1829**
relaxation phenomena in, **2445**
resonance absorption in, **2712**
magnetic resonance in, **1828**
measurement of permeability tensor in, **769**
spinels, ionic distribution deduced from g-factor of, **1831**
Ferroelectric materials, $BaTiO_3$, colloidal, properties of, **3244**
double hysteresis loop of at Curie temperature, **195**
effect of two-dimensional pressure on, **2116**
temperature changes of properties of, **1116**
variation of hysteresis loop with age, **1117**
$BaTiO_3$ single crystals, dielectric properties of, **751**
domain clamping effect in, **3245**
$BaTiO_3$-$PbZrO_3$ solid solutions, experimental determination of, **1446**
cadmium and lead niobates, **1072, 1073**
ceramics, coefficients of, methods for measurement of, **2720**
effects of aging on, **1444**
colloidal, theory of, **1445**
domain-boundary movements in, possible mechanism of, **3243**
KH_2PO_4, colloidal, properties of, **776**
$KNbO_3$, third phase transition in, **2115**
$Pb(NbO_3)_2$, properties of, **1448**
$PbZrO_3$, antiferroelectric-ferroelectric phase transition in, **3246**
$PbZrO_3$ and $PbTiO_3$, solid solutions of, **1121**
perovskite-type mixed-crystal titanates, properties of, **3572**
Rochelle salt, experimental investigation of, **2965**
theory of, **2964**
titanates, experimental investigation of, **194**
solid solutions of, phase transitions in, **3278**
Ferroelectricity, in $BaTiO_3$ and other perovskite-type crystals, and crystal structure, **2410**
origin of, **1789**
Ferromagnetic materials, alloys, with α-Fe lattice, after-effect in, **1822**
binary, saturation magnetization of, theory of, **1105**
Cr-Te, ferromagnetic resonance in, **180**
Gd-Mg, **185**
Ni-Fe, magnetic viscosity of, temperature dependence of, **181,** oriented, recent progress in manufacture of, **453**
Ni-Mn, effect of composition on change of resistance in magnetic field, **1820**
precipitation, magnetic viscosity in, **3272**
Pt-Co, magnetic viscosity of, **767**
Si-Fe, for communication applications, (**A**)**771,** grain-oriented and single-crystal, powder patterns of, **770,** preparation of large single crystals of, **182,** single crystals, domain processes in, **451**
16% Al-Fe, cold-rolled at 575°C, **2456**
armco iron, influence of domain thickness on permeability of, **3271**
with large domains, permeability at 0–7000 Mc/s of, **2984**
cementite (Fe_3C), experimental investigation of, **1104**
for cores, assessment of variability of, **183**
evaluation of, **466**
Curie points of, change of with pressure, **2142**
diffusion-after-effect in, variation with induction, **3197**
in weak alternating fields, **2637**
domains in, observation of by longitudinal Kerr effect method, **2441**
Fe, thin films of, magnetization of, **2709**
Fe and Ni, Curie temperatures of, effect of pressure on, **2143**
effect of plastic deformation on magnetization of, **1835**
ferrites. See Ferrimagnetic materials.
hard, theory of hysteresis in, **2141**
iron amalgam, effect of grain size on magnetic properties of, **449**
irons and steels, permeability of, dependence on mechanical stress of, **2440**
irreversible after-effect in, **2074**
magnetic viscosity of, **176**
magnetization curves for single crystals, influence of domain structure on, **117**
magnetostriction in, expressed in terms of external field, **2988, 3276**
manganites, experimental investigation of, **3604**
maximum-stability state in, definition of, **1102**
metals, apparent permeabilities at cm λ of, experimental determination of, **1505**
metals and alloys, magnetic moments and crystal structure of, **1484**
temperature dependence of spontaneous magnetization of, **3609**
mild steel, effects of tension and compression on magnetic characteristics of, **446**

Ferromagnetic materials, mild steel, permeability of, variation under periodic stress of, **1106**
Mn compounds, microwave resonance absorption in, **766**
Ni, anisotropy and allied effects in, **3603**
ΔE effect in, **1485**
single-crystal, domain structure of, **765,** powder patterns of, **764,** production of, **1494**
single-crystal films, coercivity of, **2442**
Ni and Ni alloys, spontaneous Hall effect in, **1825**
Ni and Si-Fe, single crystals of, Barkhausen effect in, **450**
orientational superlattices in, **1101, 1483, 2983**
permeability of, measurement at microwave frequencies of, **2467**
powder, effective permeability of, **1821**
powder mixtures and ferrites, frequency dependence of properties of, **1486**
pyrrhotite, theoretical investigation of, **763**
relations between losses and coercive force in, **1110**
single crystals of transformer steel, magnetoresistance of, **174**
soft, dependence of coercivity on lamination thickness, **2444**
soft iron, secondary recrystallization textures in, **447**
steels and alloys for permanent magnets, **1489**
surface anisotropy of, **1103**
and superlattices formed by orientation, **2983**
survey of recent developments in, **768**
susceptibility of, effect of elastic tension on, **445**
Ferromagnetism, energy-band theory of, two-electron case, **1033**
investigation of magnetic-reversal domains, **448**
Pauling's theory of, refinement of, **2366**
quantum theory of, **1482**
resonance, in cavities, tensor formulation of, **2635**
in colloidal suspensions, **443**
in Fe and Ni, using radiation from mass emitter, **1824**
of wires, effect of tension on, **444**
Field plotter, capacitively coupled, **213**
Field strength, (See also Reception; Television; Wave propagation)
measurements, v.h.f., in link with range far beyond horizon, **2498**
at 3·675 kMc/s, **511**
meter, experimental, for study of band III aerials, **2462**
of WWV transmissions, at Châtonnaye, calculation of, **3668**
Films, (See also Sound recording; Television)
thin, Al_2O_3, electron currents in, **121**
Bi, photoelectric effect in, **773**
bombarded by slow electrons, decomposition etc. of, **1748**
CdO, irreversible changes in electron mobility in, **2969,** optical absorption and electrical properties of, **2970**
CdS, photoelectric effect in, **3267,** properties of, **2706**
evaporated, Ag, transmission of microwaves through, **1834,** BaO, photoemission and thermionic emission from, **2689**
Fe, magnetization of, **2709**
Ge, Rh and Au, h.f. resistance of, **2696**
metal, conduction mechanism of, **2695,** and imperfect contact, comparison between, **2355**
metal and semiconductor, physics of, **3542**
MgO, self-sustained emission from, **774**
PbS, frequency dependence of resistance of, **3581**
photoconducting, h.f. resistance of, **2697**
Sb, electrical properties of, **3270**
semiconducting, modification of conductivity of, **1452,** transparent, oxide, **2435**
Filters, (See also Networks)
a.f., with adjustable characteristic, **2881**
crossover, constant-resistance, **675**
narrow-band, variable frequency, **1341**
attenuation of, measurement of, at 10–1000 Mc/s, **475**
band-pass, duplexing, for 2-kMc/s communication equipment, **677**
h.f., multistage, calculation of, **84,** (**C**)**1337,** for vestigial-sideband television transmitters, **361**
impedance-transforming, design of, (**A**)**1712**
with minimum number of coils, **3497**
response to frequency step of, **1714**
v.h.f., design of, **1715**
0·4-octave, for frequencies between 10 and 200 kc/s, **998**
8–13-c/s, (**D**)**676**
band-pass and low-pass, with nondissipative elements, equations for design of, **1336**
response to voltage of linearly varying frequency, **3166**
bandwidth and rise time of, **3494**
using coaxial-line elements, design of, **2338**
comb, for pulsed radar, **2884**
design of, use of punched-card machines in, **2883**
electromechanical, design and performance data for, **1339**
with generalized parameters, calculation of, **2035**
helix, for travelling-wave valves, **1963**
ladder-type, image transfer coefficient of, graphical representation of, **997**
smoothing of loss attenuation in basic types of, **2036**
theory of, **1710**
zig-zag, design of, **83**
lattice, crystal, design of, **674**
maximally flat or Tchebycheff type, band-pass, **360**
band-pass and low-pass, **358**
for noise-spectrum analysers, optimum design of, **3168**
nondissipative, synthesis of, direct method for, **1707**
nonlinear, optimum, (**D**)**1338**
optimum, for detection of small radar signals in clutter, **149**
with quasi-distortionless transfer functions, **1706**
RC, with transistor negative-impedance converters, **1711**
Filters, *RC*, incorporating two-way switch operated at carrier frequency, **3496**
r.f. and i.f., transient response of, (**D**)**2037**
synthesis of, use of conformal mapping with potential-analogue method for, **357,** (**C**)**3167**
Tchebycheff-type, Jacobi's sn elliptic function in calculation of, **85**
low-pass, design of, **1340**
theories of, historical development of, **1709**
transients in, analysis of, **3494**
tuned, four-stage, **3493**
with up to four tuned circuits, formulae for, **3495**
u.s.w., variable, **2339**
Fluctuations, (See also Noise)
electrical, thermodynamics applied to, **2877**
theory of, in physical measurements, **472**
Frequency, (See also Analysers, frequency-spectrum)
allocations, in Australia, as at 1st July 1953, **2767**
control, automatic, for radar, **2679,** wide-band searching type, **2209**
by electrodeless discharge, **362,** and magnetic field, **90**
measurement of, at cm λ, using crystal-diode harmonic generators **804**
at Wittsmoor monitoring station, **3680**
meter, stroboscopic, built-in, for 3–30 Mc/s, **1863**
using tachometer with cold-cathode tubes for visual display, **1153**
Type FM 312/1, for 1 kc/s–300 Mc/s, precision-type, **2475**
multipliers, using detector circuits, efficiency of, **1353**
stabilization. See Stabilization, frequency.
standard, (See also Standard-frequency transmission)
primary, atomic clock as, **3287, 3615**
h.f. quartz-crystal units for, **3619**
N.B.S., quartz resonators in, **3288**
100-kc/s quartz-crystal, at Galileo Ferraris Institute, **3618**
Fuses, for electronic equipment, review of modern types, **344**

Galactic radiation. See Cosmic radiation.
Galvanometers, magnetic field between pole pieces, calculation of, **3004**
spot displacement in, photoelectric measurement of, **2472**
Gases, ionized, (See also Plasma)
collision effects and conduction current in, **115, 3195**
diffusion cooling of electrons in, **2359**
electronic drift velocity in, formula for, **2072**
low-pressure plasma oscillations and high-pressure sound-type oscillations in, **2633**
subjected to oscillating electric and constant magnetic field, magneto-ionic theory of, **1030**
solution of Boltzmann's equation for, **2910**
Generators, (See also Noise generators; Oscillators; Signal generators; Power supplies; Sound; Ultrasonics)
current-step, **2183**
e.s., Van de Graaff, design of h.v. electrodes for, **816**
impulse-noise, for testing television interference suppression circuits, **2725**
mm-λ, harmonic, using Si-crystal frequency multipliers, **2605**
pulse, delta-function, 20-kV, **3173**
h.v., sawtooth and square-wave, for measurements of dielectric strength, **1149**
using saturated reactor with rectangular hysteresis loop, **3503**
variable-frequency, using EQ40 nonode valve, **366**
spark, mm-λ, review of research on, **89**
thermoelectric, paraffin-lamp-driven, for radio receiver power supply, **2514**
valve, 3-phase, for low frequencies, **866**
Geomagnetic storms, atmospheric source of, **1758**
correlation with sunspot cycle, **3207**
description and theories of, **2387**
recurrence tendency during period 1950–1953, **2386**
relation to ionospheric winds, **1757**
35- and 74-Mc/s echoes during, **1771**
Geomagnetism, areal distribution of activity near auroral zone, **2383**
change in declination accompanying intense E_s ionization, **410, 2943**
correlation with solar activity indicated by yellow coronal line, **2643**
electron inertia as contributory factor, negligibility of, **2382**
field disturbances, control by sunspots, **2082**
correlation with solar activity, **1050, 1751**
correlation with variations of F_2-layer critical frequencies, **2942**
diurnal variation of, universal time component in, **721**
earth-potential measurements for indication of, **2660**
effect on ionosphere of, **730**
nonuniform induced components of, **2659**
field intensity in E layer, determination of, **720, 2084**
field variations, analysis of by phased-epoch method, **1049**
correlation with auroral and ionosphere variations, **1768, 2395**
diurnal, near magnetic equator, **1051**
dynamo theory of, **2384, 2392**
and earth currents, **1412**
e.m. variometer for studying vertical component, **401**
lunar, diurnal, at Amberley, N.Z., **2385**
and noise in range 0·5–20 c/s, **722**
at Port Martin, recording of, **400**
rapid, analysis of observations of, **1413**
vertical component of, and induced electric field, **3547**
positions of poles, **399**
Geophysical prospecting, magnetotelluric method, **491**
using methods depending on radioactivity, electronic equipment for, **826**

Geophysical prospecting, for radioactive materials, using scintillation counter, **1161**
small-scale models of e.m. field for, **492**
for uranium, methods depending on radioactivity, **827**
Geophysics, statistical analysis of observations, **1048**
Graphite, resistance at low temperatures of, **1078**
Ground, conductivity of, at r.f., U.S. determinations of, **2381, 3548**
Gyrators, (See also Faraday effect)
for cm λ, design of, **82**
using Hall effect in Ge, analysis for, **3161**
microwave, using waveguide with asymmetrical ferrite, **2040, 2599**
quadripole theory of, **3160**
Gyromagnetic effect, Fisher's, observed in ferrite in waveguide, **2921**

Hall effect, measurement of, without external magnetic field, **1497**
Hearing aids, description of recent models, **1664**
Philips models, detailed description of, **325**
audibility of amplitude/frequency distortion of music, **1979**
audibility of nonsinusoidal variations of pitch, **3**
effect of masking on audibility and modulation thresholds, **305**
electrophonic, effect of different types of electrode in, **304**
impaired and normal, effect of traffic noise on, **3112**
masking of narrow-band noise by sine waves, **3111**
response to two overlapping messages, **2838**
selective response to one of two simultaneous messages, **2837**
subjective musical pitch, experimental investigation of, **2832**
threshold for sounds with frequency spectrum of various widths, **3110**
of two-tone sounds, loudness relations in, **2841**
Heating, h.f., dielectric, of laminated materials, temperature distribution in, **3638**
induction, British equipment for, survey of, **3317**
radio interference from, **3672**
h.f. and microwave, medical applications of, **3639**
——**elements,** wire or rod, in vacuo, temperature distribution along, **2375, 2641**

Image converters and intensifiers, electron-optical, design and applications of, **2188**
Image intensifiers, using electroluminescent and photoconductive layers in contact, **3061**
electronic, possibilities and limitations of, survey of, **2482**
Impedance, (See also Aerials; Transmission lines)
acoustic, of circular tube with orifice, end corrections for, **935**
measurement of, with acoustic waveguide, **302,** by resonance method, **2553**
of plane radiator with lateral motion, **3435**
of porous layer, at oblique incidence, **1650**
of porous surfaces, measurements of, **303**
of rectangular tubes, **934**
of walls and ceilings, vibrometer measurements of, **2554**
of cylindrical conductors, to current pulses, **383**
homographic-transformation method for determination of, **791**
matching, of aerials, charts for estimating efficiency of, **356**
of asymmetrical aerials, circuits for, **2033**
u.h.f. termination for waveguide or coaxial line, **(D)1510**
v.h.f., for coaxial lines, **3478**
measurement, on h.f. resistors, cavity-resonator method for, **204**
measurement and indication of, c.r.o. method for, **2999**
meter, recording, for X band, **3629**
parallel, graphical method for finding resultant of, **648**
three methods of calculation of, **1688**
of parallel conductors, proximity-effect formula for, **2323**
of waveguides, measurement of, **2172**
Inductors. See Coils.
Instruments, electrical, performance limits of, **(D)1144**
Insulating materials, (See also Ferroelectric materials)
containing admixtures of conducting materials, dielectric losses in, **780**
araldite casting resins, properties and applications of, **2454**
British Association Section A meetings, Sept. 1953, **779**
ceramic, $BaTiO_3$, anomalous temperature coefficient of permittivity in, **2716**
containing $BaTiO_3$, **1449**
(Ba, Sr)TiO_3, permittivity in 3-kMc/s region, **193,** properties of, **783**
compounds in quaternary system $BaTiO_3$-$BaSnO_3$-$SrSnO_3$-$CaSnO_3$, **192**
for h.f., **2152**
loss factor of, reduction by heat treatment, **2451**
containing MgO and TiO_2, **463**
$PbHfO_3$, phase transitions in, **782**
stannates, **191**
technical and bibliographical survey of, **3611**
fused silica, elastic constants of, **189**
glass, dielectric relaxation at low frequency of, **1841**
for electronic industry, **789**
silicate, dielectric losses in, **2452**
thermodynamic and kinetic properties of, **197**
I.E.E. symposium, March 1953, **1123**
mica, alternatives to mica, **465**
Indian, d.c. resistivity of, **2453**
synthetic, hot-pressed ceramic, **784**
mm-λ refractive index of, **1840**
nonrigid, survey of recent developments in, **2151**
$PbTiO_3$, domain structure of, **1447**
Insulating materials, plastics, foamed, for coaxial cables, **3279**
polymers, teflon, dielectric properties of, **785**
polythene and perspex, conductivity induced by X rays in, **2153**
progress in, **1839**
solid, dielectric strength of, **781**
$SrTiO_3$, single-crystal, electrical properties of, **196**
Interference, between colour-television receivers and amateur transmissions, **1558**
from fluorescent lamps, **243**
suppression of, **841**
in f.m. receivers, with nonideal demodulator characteristics, **2502**
in f.m. reception, from unwanted f.m. transmissions, **1899**
from h.f. heating equipment, **3672**
from h.v. lines, **519**
measurement of, **471**
study of, **520**
impulse-noise, in a.m. and f.m. systems, **2762**
generator for receiver tests, **2725**
industrial, measurement and suppression of, **3349**
international conference, London, 1953, **1556**
measurements and standards for control of, in U.S.A., **3026**
in phototelegraphy, elimination of, **879**
in radio reception, measurement equipment for, **795**
in reproduction of music, **1981**
suppression, campaign in Iserlohn, **1901**
in relation to West German regulations, **1559**
in s.w. and u.s.w. radio reception, suppression of, **523**
from television receivers, I.R.E. standard methods of measurement, **3671**
U.S.A. investigations of, **3062**
in television reception, on band III, **3708**
due to ignition circuits, measurement and suppression of, **572**
measurement of, **2790**
screening materials for prevention of, **2530**
suppression of beat between sound carrier and colour signal components, **2250**
susceptibility of monochrome and colour systems to, **570**
due to unwanted transmission via sporadic E, **278**
u.s.w., measurement equipment for, **478**
in v.h.f. reception, from unwanted stations, prediction of, **2204**
from very-high-voltage lines, mechanism of, **521**
Interferometers, Boltzmann, for investigating mm-λ oscillator spectrum, **1865**
Fabry-Perot type, for microwave frequencies, **809**
for mm λ, **211**
microwave, for determining velocity of e.m. waves, **3016**
Ion emission, secondary, from conductors bombarded by ions, **3530**
Ionization, (See also Gases, ionized)
of gas, by electrons, statistical analysis of, **703**
of gases, international conference, Oxford, 1953, **701**
recombination at low pressure, **2634**
Ionized media, (See also Gases, ionized; Plasma)
with distant boundaries, theory of, **702**
Ionosphere, (See also Atmosphere; Wave propagation)
absorption in, abnormal, during Feb. 1952, **1052**
measurements on, discussion of, **3220,** using observations of 18·3 Mc/s cosmic radio noise, **1426**
for oblique incidence, **1550**
attenuation of galactic r.f. radiation by, **2397**
charge on, **131, (D)2663**
conductivity of, vertical distribution of, **3210**
correlation of observations with geomagnetic and auroral variations, **1768, 2395**
current systems in, responsible for geomagnetic effects of solar flares, location of, **1423**
numerical calculation on dynamo theory, **1420, (C)2665**
S_D, theory of, **2941**
currents in, **1417, 1418, 1419**
D layer, attenuation variations at 245 kc/s, **1415**
formation by photoionization of NO, **2087**
soundings of, **132**
disturbances in, during geomagnetic bay, statistical analysis of, **409**
during magnetic storm, May 9 1948, **3556,** April 18 1951, **3555**
accompanying solar flares, **2672**
sudden-onset, energy absorbed during, **3551**
E layer, bifurcation of, rocket observations of, **1054**
conductivity of, and diurnal magnetic variations in equatorial regions, **3553**
determination of geomagnetic field in, **720, 2084**
dissociative recombination in, **405**
formation of, **2667,** contribution of solar X rays to, **726, 1416,** theories of, **1057**
lower, wind analysis by meteor-echo technique, **2393**
lunar height changes and lunar currents in, **3215**
subsidiary layer in, recognition of, **2666**
variation of maximum ionization with zenith distance of sun, **3211**
E and F_1 layers, origin of, **1764**
E and F_2 layers, effect of solar eclipse on, **1059**
E_s layer, effect of intense ionization on geomagnetic declination, **410, 2943**
latitude effect in ionization of, **731**
lunar tidal variations in, **408**
observations at Kodaikanal, **3212**
types of scattering from, **138**
E_s and F_2 layers, disturbances in, and geomagnetic disturbances, **3554**
effect of magnetic disturbance on, **730**

Ionosphere, effects of partial eclipse of Feb. 14 1953 on critical frequencies, **2940**
electron density in, distribution of, in presence of external magnetic field, **2088**
and layer heights of, **2086**
vertical distribution of, (D)**411, 1767**
F layer, over Buenos Aires, effect of solar eclipse on, **136**
dissociative recombination in, possible mechanism of, **1058, 1766**
distribution of ionization in, **2939**
drift movements in, radio-astronomical observations in, **3557**
over Hawaii, spread echoes from, **3213**
over Huancayo, spread echoes from, relation to radio-star scintillations, **3214**
multiple stratification at Ibadan, **2668**
regularities in, **407, 2089**
structure of, **727**
travelling disturbances in, c.w. methods of investigating, **725**
F_1 layer, critical frequency and transmission factor of, **831**
F_1 and F_2 layers, separation between, variation of, **2938**
F_2 layer, critical-frequency variations, anomalous, **728,** anomalous, during solar eclipse, **1422,** correlation with geomagnetic disturbances, **2942**
effects of solar corpuscular eclipse in, **2673**
ionization distribution in, at high latitudes, **134, 2669,** theory of, **2670**
large disturbance of, associated with small magnetic disturbance, **133**
occurrence of multiple reflections, **2750**
above Singapore, electron content of, **729**
solar tides in, **1421**
storms in, prediction of, **135**
glow discharges in, winds as causes of, **1770**
$h'f$ curves, method of computing, **3209**
intermediate layer between E and F layers, **2396**
irregularities in, complex reflections from, **1056**
d.f. studies of, **1055**
investigation with high-resolution sounder, **1761**
method of locating, **1762**
layer heights, calculation using exact value of refractive index, **1765**
low-electron-concentration layer, long-wave investigation of, **404**
and motion of slow electrons, **106**
movements in, horizontal, survey of research on, **2945**
observations of, new station at Port aux Français, Kerguelen Islands, **406**
optic axes and critical coupling in, **412**
oscillations in, correlation with atmospheric pressure variations, **2090**
relation to geomagnetic field variations, **3549**
tidal analysis for, **2391,** application of plasma theory to investigation of, **2392**
plasma theory of, and air movements in, **2085**
refractive indices of, rocket measurements of, **403**
review for 1953, **1060**
solar particles in, action of, **3550**
sounder, f.m., with coherent integration, for weak-echo detection, **3219**
for simultaneous recording of virtual height and critical frequency, **2937**
soundings, l.f. and m.f., **2396**
vertical-incidence $h't$ observations of, interpretation of, **724**
virtual height records, analysis taking account of geomagnetic field, **1414**
storm-D regions, motion of, **2390**
storms in, description and theories of, **2387**
notes on, **2936**
1953 Japanese symposium on, **3552**
structure of, due to ionization by particles, **1763**
sunrise effect on reflection height of 16-kc/s waves, **2092**
travelling disturbances in, electron-resonance mechanism of, **2935**
use of rockets for research on, **130**
vertical distribution of ionization in, evaluation from observations of, **2664**
winds in, **2944**
deduced from dynamo theory of geomagnetic disturbance, **2394**
and geomagnetic storms, **1757**
methods and results of investigation of, **2091**
model for region from 100 km to 400 km height, **732**
spaced-receiver fading records of, analysis of, **3216, 3217**
Ions, currents in air, pressure effects due to, **2365**
gaseous, recombination of, Thomson formula for, **3533**

Lenses, (See also Aerials; Electron lenses)
dielectric, doubly-convex, e.m. field near, **2574**
microwave, artificial-dielectric, with refractive index < 1, analysis for, **639,** theory of, **1685**
Luneberg-type, **336,** modified, **3472**
metal-plate, using parallel doubly curved plates, **2864,** reflection and transmission coefficients of, **2316,** secondary beams from, **2001,** tolerances in parameters of, **2000**
path-length type, for Japanese relay system, **3471**
Light, nature of, deductions from experiments on, **1727**
sources, r.f. fluctuations of, photocell-amplifier arrangement for detecting, **697**
velocity of, determined by band-spectrum method, **2619**

Lightning, and atmospherics, relation between, **1427**
atmospherics due to, propagation of, **1544, 2195**
ball, gas-discharge experiments for investigating, **1769**
origin and nature of, general account of, **2094**
pilot streamer in, **1062**
protectors, Si p-n-junction, **2226**
streamers, use of 50-cm radar for studying, **1063**
Limiters, analysis as variable-gain device, **1896**
Loudspeakers, (See also Public-address systems; Sound)
acoustic testing of, **8**
cone-type, effects of surrounding device on, **2293**
efficiencies of, useful absolute efficiency as criterion, **2292**
electrodynamic, mechanical transients in, **3117**
horn-type, air-chamber of, sound propagation in, **321**
impedances of, definition of, **959**
ionic, relation between ion current and pressure, **2365**
ionophone, using interaction of ultrasonic waves in air, possibility of, **958, 1983**
measurements on, British Standard 2498: 1954, **3445**
power-handling capacity of, experimental determination of, **618**
relation between sound field and electrical input, analysis of, **1660**
Luminescence, (See also Electroluminescence; Phosphors)
and exo-electron emission, parallelism between, **2907**

Magnetic field, analytical solution for anisotropic medium, **3534**
of conductor carrying d.c., **1391**
of electron-microscope lenses, measurement of, using scale models, **3658**
electron-optical shadow method of mapping, **2465**
measurement of, application of Faraday effect to, **3296**
electronic voltage integrator for, **2610**
with Förster probe, **1506, 2174**
proton-resonance and other methods for, **477**
motion of, and cosmic electrodynamic problems, **3546**
of rectangular pole-pieces, calculation of, **1388**
two-dimensional, measurement of, method applied to quadrupole magnet, **3297,** theory of, **3295**
twisted, in conducting fluids, formation of loops in, **2636**
of uniformly magnetized ellipsoids of revolution, **116**
Magnetic materials, hysteresis-loop plotter with feedback integrator, **1507**
pulse permeabilities and losses in, measurement of, **1826**
Magnetic properties, measurement of, using toroidal cores, errors in, **3625**
of metals, theory of, **1737**
of metals and alloys, effects of band shape on, **2140**
temperature variation of susceptibility, measurement of, **2723**
Magnetism, of linear atomic chains, at absolute zero point, **1389**
in metals, surface corrections to Landau diamagnetism and de Haas-van Alphen effect, **1032**
paramagnetic resonance, **452**
in metals, **186**
U.S.S.R. research on, survey of, **1736**
Magnetometers, airborne, Type-1A, **719**
fluxgate-type, survey of, **3626**
small, sensitive, using mumetal-wire detector inside solenoid, **1142**
three-component, based on star photographs, **128**
Magneto-optical phenomena, (See also Faraday effect)
at optical and radio wavelengths, relations between, **2374**
Magnetostriction, measurement of, torsion method for, **1849**
theoretical and experimental study of, **3277**
Magnets, permanent, aging of, experimental investigation of, **772**
Co-Fe-powder, coercive force of, **786**
tubular, for electron-beam focusing, **2991**
Mathematics, approximation method, Tchebycheff, **200**
autocorrelation functions, error due to finite integration time-limits in determination of, **1847**
Bessel functions, asymptotic expansions of, **2994**
boundary-value problems, finite-difference networks for solution of, **1331**
correlation coefficients, estimation from scatter diagrams, **2457**
differential equations, nonlinear, partial, of elliptic type, finite-difference method for, **1845,** second-order, geometrical integration of, **2162**
eigenvalues of $\Delta^2 u + \lambda u = 0$, **1124**
elliptic integrals and functions, brief survey of, **3282**
computation of, **3283**
exponential integral, evaluation for large complex arguments, **3614**
forced-vibration equation, Rayleigh-type, solutions of, **201**
Fourier series, summation of by means of Laplace transformation, **199**
Hill equation, gaps in spectrum of, **2161**
homographic transformation, geometric construction of, **791**
hyperbolic and inverse hyperbolic functions, table for, **793**
infinite discrete spectrum, sufficient condition for, **2160**
infinite series in closed form, summation of, **1843**
$\int_0^\infty e^{-u^2 - x/u}\, du$, evaluation of, **792**
integral transforms, approximate method of evaluating, **2158**
for linear time-varying systems, **3284**
Jacobi's sn elliptic function, calculation of for determination of filter parameters, **85**
Laplace transforms of given form, inversion of, **2159**
Legendre functions of fractional order, **1496**

Mathematics, operational methods, approximations in, **2156**
oscillatory integrals, computation of, **2995**
osculatory interpolation, new formulae for, **2993**
polynomial equations, location of roots of, **1495**
prolate spheroidal wave functions, recurrence relations for, **2157**
spherical wave functions, expansions used in scattering problems, **3281**
statistical functions, of stationary random processes, **3285**
statistics, of population with creation and recombination dependent on existing numbers, **2717**
tables, unpublished, Royal Society depository for, **3613**
trigonometrical sums, formulae relevant to a.c. in cables, **2155**
vector Laplace operator, meaning and application of, **1844**

Measurements, (See also individual subjects)
accuracy of, statistical theory of information for studying, **794**
dynamic, on e.m. devices, using sampling switch, **1141**
fluctuation theory in, **472**
of high voltage, high resistance and leakage current, using neon tube, **203**
practical adjustments in calibration, **796**
of weak electric charges, by pulse technique, **1129, 1130**

Metals, (See also Conduction; Ferromagnetic materials; Magnetic properties; Magnetism)
conductivity of, at high current density, **1793**
electron propagation in strained metallic lattice, **1792**
electron scattering in, anomalous, **3190**
Ga, high-purity, technique for preparation of, **2449**
galvanomagnetic effects in at h.f., **760**
of high purity, preparation of, **1493**
lattice defects and resistivity of, **2117**
monovalent, effect of lattice distortion on properties of, **1074**
thermoelectric power at high temperature, **1479**
optical absorption in, theory of, **2106**
Re, properties and applications of, **2450**
resonance absorption at cm λ in, **1833**
Sb, variation of properties at melting point, **3573**
Ta, single crystals, growth and surface properties of, **2715**
W, single crystals, thermionic and surface properties of, **2714**

Meteors, radar methods for location of, **1749**
showers, radar determination of heights and radiants of, **2930**
trail echoes, from dense columns, calculation of intensity of, **1398**
dependence of duration on wavelength, **1399**
effect of wavelength on echo rate, **1750**
radar determination of height of disappearance of, **713**
radar studies of, **1042**
from trail head, **712**
trail lengths, experimental study of, **124**

Meters, a.c., indicating, calibration of, N.P.L. methods for, **2470**
admittance, v.h.f. and u.h.f., Type 1602-B, **479**
ammeter, d.c., non-contact, for remote indicating and recording, **1145**
thermocouple type, for use at v.h.f., **3302**
current and voltage, a.f., multirange, high-accuracy, thermocouple types, **3300**
echometer, for testing coaxial cables, **1136, 1868, 3293, 3623**
fluxmeter, recording, high-sensitivity, **3002**
for measurements on ferromagnetic materials, **1508**
for inductance and dynamic-resistance of coils in medium-wave receivers, **3003**
megohmmeter, with transistor h.v. generator, **1515**
valve, **214**
milliammeter, r.m.s., for 0–10 Mc/s, **3301**
periodmeter, **221**
permeameter, r.f., **1857**
power, 40–4000-μW, microwave, **2731**
using principle of counter-rotating magnetic fields, **2469**
probe-type, for earth-capacitance measurements, **215, 2473**
psophometer, mains-operated, high-accuracy, **805**
time constants of, measurement of, **1143**
universal, for direct voltage < 500V, direct current $> 10^{-12}$A and insulation resistance $< 10^{8}$MΩ, **2182**
voltage and resistance, d.c. and a.c., **3005**
with voltage transformer for high-potential input, **2471**
voltmeter, e.s., with linear indication, with liquid dielectric, **1513**
peak, h.v., with long time constant, **3628**

Microphones, calibration of, comparison of methods using pure tones or noise source, **301**
capacitor, Japanese, Type MR-103, **3444**
for measurement of high-intensity sound, **320**
new, **318**
sensitivity limit for, **317**
directional, dynamic, developed in Austria, **1285**
using lens-horn combination, **1659**
using slotted tube, **1982, 3116**
'gas', using modulated ultrasonic waves, **1983**
moving-iron, miniature, **956**
piezoelectric, miniature, **955**
ribbon-type, directional, **957**
sensitivity of, chart relating different methods of rating, **314**
spherical, directional and frequency response of, **1286**

Microwaves, (See also Wave propagation)
applications in scientific research, **224**
effect on body tissues, **813**
research on, during 1952, at Florence, **1629**
symposium on, Montreal 1953, **705**

Mixers, crystal, plug-in waveguide type, for 20–60 kMc/s, **890**
using transistors, **1898**

Modulation, comparison of code and other systems, **3027**
comparison of different methods in light of communication theory, **1174**
depth of, increased by peak speech clipping, **575, 1237**
frequency, Armstrong system, degree of a.m. produced in, **246**
distortion in, **1325,** nonlinear, **1689,** phase, due to distortion of carrier, **3350,** produced by mismatched quadripole, **3164**
multiplex methods using, **1899**
representation of using Bessel functions, **1903**
with single-tone modulating signal, harmonic distortion in, **2503**
transient response in, **2337,** (**C**)**3165**
unwanted a.m. in, **1347**
frequency or phase, spectrum width in, simple formulae for, **3351**
for speech transmission, comparison of, **1562**
output products for two-frequency input, amplitude of, **2212**
tables for evaluating, **3028**
polyphase, in telecommunications, **843**
pulse, effect of noise in systems using, **3353**
'elastic' system using quantization, **3029**
spectrum of, **249**
pulse-code, decoding processes for, **239**
delta, experiments in Austria on, **3673,** quantizing noise in, **1564**
integration method for decoding, **2505**
with linear detection, **3030**
using special switching tubes for sampling and coding, **373**
pulse-width, experimental system, **250**

Modulators, amplitude and frequency, using reflex klystron Type 723 A/B, **3180**
frequency, using $BaTiO_3$ capacitor, **280**
reactance-valve circuit for, **1942**
serrasoid, investigations on, **279**
v.h.f., using resonant cavity, **2251**
low-level, Si-diode, Type-1000-P7, **881**
pulse, for magnetrons, **2061**
pulse-width, for single-channel voice-frequency communication, **2532**
rectifier, intermodulation distortion in, **2531**
s.s.b., microwave, using ferrites, **3183**

Monitoring, automatic, of B.B.C. programmes, (**D**)**857**
of common-wave frequencies, at Wittsmoor station, **3680**

Moon, radio echoes from, fading of, explanation of, **2748**

Multivibrators. See Oscillators.

Music, electronic, **3333**

Musical instruments, electronic piano simulator, **225**

Navigation aids, (See also Radar)
aerial, Doppler-effect f.m. v.h.f. or u.h.f. omnirange, **745**
loran, AN/APN-70 receiver, **2678,** for survey work in Pacific, **147**
V.O.R. and I.L.S., omnirange receiver for, **2676**
c.w. phase-measuring methods, Raydist, **1431**
marine, **1919**
racon beacon, **2949**
Raydist, for measuring ships' speeds, **3227**
sonar, multibeam, with p.p.i., **3225**
u.s.w., harbour, coastal and waterways service, present-day problems of, **259**

Networks, (See also Circuit theory; Circuits; Filters)
analysis of, by block-diagram method, **994**
by Kron's matrix method, **76**
analysis and synthesis of, graphical method for, **663**
constant-delay, low-pass and band-pass, **2880**
synthesis of, **2882**
frequency response of, corner plots for sketching curves of, **2332**
lattice, *RLC*, synthesis of, (**C**)**359**
linear, analysis of, operational-calculus method for, simplification of, **2873,** return-difference matrix for, **662**
nodal analysis of, with no specified reference node, **665**
with time-varying parameter, analysis using complex symbolism, **77**
with time-varying parameters, matrix analysis of, **1692**
minimum-phase, build-up phenomena in, analysis by paired-echo method, **671**
multiterminal, matrix analysis of, **2333**
passive, physical realizability of $2m$-rank impedance matrix as, **88**
n-terminal-pair, synthesis of, **3158**
$(n + 1)$-pole, analysis of, **1343**
nonlinear, approximate composite-straight-line characteristics for investigating, **649**
approximate steady-state analysis for, **351**
phase-correction, for television cables, **1196**
phase-splitting, r.f., design of, **1910**
wide-band, *RC*, design of, **2039**
quadripole, with active elements, intrinsic stability of, **3163**
for directional coupling and isolating, **1334**
dissipative, microwave, equivalent circuit parameters for, determination of, **1499**
gyrator. See Gyrators.
impedance transformation by, **3162**
input impedance of, graphical method for determining, **670**
lattice, symmetrical, determination of pass bands and attenuation bands of, **3491**
loss-free, synthesis of, **993,** transformation properties of, **992, 2336**

Networks, quadripole, passive, circle-diagram method for studying, **81,**
synthesis based on transient conditions for, **3492**
simplified tensor analysis of, **80**
u.h.f., application of loci-curve theory to, **355**
RC, distortion of pulses by, **2032**
equivalent *Q* of, (**D**)**672**
synthesis of transfer functions for, (**D**)**1704**
twin-T, theory and oscillator applications of, **673**
RLC, bandwidth for noise with power-law spectrum, **352**
canonic forms of, **2330**
synthesis of, **1332**
transfer voltage ratio of, **3490**
unbalanced, analysis of, **1333**
reactance, insertion-loss method of synthesis, **2029**
synthesis of, **1708**
response of, transient and steady-state, relations between, **3488**
separating-filter, h.f., for transmitter-receiver combinations, **87**
synthesis of, iterative numerical method for, **1703**
techniques for, **2872**
theorem on, and applications, **1000**
theorems concerning change of voltage reference terminal, **2878**
theory of, bounds on time and frequency responses, **2331**
conditions for monotonic transient response, **2031**
reformulation of Kirchhoff's second law, **661**
time considered as complex variable in, **2025**
transistors as elements in, **2026**
3-terminal, active, theory of, **3159**

Noise, (See also Atmospherics; Cosmic radiation; Fluctuations; Solar radiation; Sound)
a.f., in transmission networks, measurement of, **805**
analogue computers for studying, **52**
circuit, Brownian-motion analysis for, **2027, 2028**
low-temperature investigation of, **1369**
current, in carbon resistors, **343**
in composition resistors, **2328**
in c.w. magnetrons, **579**
in damped oscillatory circuits, quantum effects in, **2602**
flicker, in Ge rectifiers, **3711**
in oxide cathodes, mechanism of, **606**
generator, gas-discharge, microwave, in coaxial-line form, **1858,** for 8 mm λ, **2478**
standard, using heated resistor, **1521**
in *LC* oscillators, effect of, **363**
non-Gaussian, response of linear systems to, **3031**
with nonperiodic time function, autocorrelation and Fourier-analysis methods of investigating, **2551**
in *p-n* junction phototransistors, shot dependence of, **2544**
in point-contact Ge diode, measurement of spectra of, **1602**
reduction of by illumination, **1603**
with power-law spectrum, effective bandwidth of *RLC* circuit for, **352**
power spectrum of, filters for analysis of, **3168**
measurement errors due to finite sample, **2997**
in receivers and valves at v.h.f., measurement of, **797**
r.f., from d.c. H arc, **2070**
in semiconductor filaments, mechanism of generation of, **1100**
in semiconductors, **2438**
frequency dependence of, **3601**
Gisolf's theory of, **2139**
shot, in Ge filaments, explanation of, **171**
in semiconductors, and flicker, in cathodes, analysis for, **605**
shot and partition, in junction transistors, **3393**
due to sliding contacts, review of, **1557**
thermal, measurement of conductor temperature based on, **2480**
physical basis of, **1015**
in travelling-wave valves, theory of, **3722**
vacuum fluctuations, possible observation at low temperature, **2603**
valve, at a.f., measurements of, **2825**
effect on oscillators, **683**
influence of transit time on, **3412**
theory of, **3080**
in v.h.f. and u.h.f. amplifiers, feedback for reduction of, **2899**
valve-grid, induced, experimental investigation of, **1261**
v.l.f., in Ge filaments, **2705**
in range 0·5–20 c/s, and geomagnetic phenomena, **722**

Optics, brightness-flicker, investigation of response of eye to, **3381**
geometrical, based on Maxwell's field theory, **1019**
wave and ray, in inhomogeneous absorbing media, **1372, 3515**

Oscillations, nonlinear, interaction of, theory of, **103**
relaxation, mathematical treatment of, **3172**
theory of, verification of, **3502**
r.f., generated by d.c. carbon arc, **389**
self-sustained, in nonlinear systems, analysis for, **467**
in transistors, due to transit-time effects, **2540, 3392, 3715**
van der Pol equations for, solution of, **2886, 3498**

Oscillators, (See also Circuits; Signal generators)
a.f., amplitude-stabilized, using transistors, **1352,** (**C**)**2893**
using junction transistors, analysis of, **3174**
keyed, using transistor, **687**
quartz-controlled, **354**
analysis of, admittance diagrams in, (**D**)**1344**
bridge-stabilized, transformerless, with complex amplification factor, **3169**
for 1 c/s–120 kc/s, **91**
controlled-frequency, with frequency 'memory', **681**
Oscillators, crystal-controlled, classification of, **2892**
frequency stability and accuracy of, **92**
sub-harmonic, **2048**
1–32-Mc/s, **2475**
with discontinuities ('à déferlement'), topological analysis of, **1716**
effect of valve noise on, **683**
feedback, *RC*, for 11 c/s–100 kc/s, **2045**
filtered, nonlinear, effect of perturbations on, **2044**
with frequency range 0·0016–16 c/s, in analogue computers, **1321**
generating steep-fronted waves, analysis of operation of, **1004**
heterodyne, design of, **1003**
high-stability, modified-Hartley, **1001**
with inertial nonlinearity, fluctuations in, **3501**
with inertial nonlinearity and negative feedback, quartz-controlled, **2889**
ionic, a.f. or r.f., **2887**
LC, effect of noise on, **363**
with stable frequency, review of theory of, **3170**
LCR, build-up of oscillations in, fluctuations in, **2341**
with linear and nonlinear elements separable in first order, analysis of, **2601**
magnetostrictive, 80–500-kc/s, measurements on, **1638**
measure of activity of, **1002**
mass-emitter, use in ferromagnetic-resonance experiments, **1824**
mm-λ, magnetic-undulator, motion of electron in, **1036,** radiation from, **1037**
multivibrator, bistable, Eccles-Jordan flip-flop, **1350**
negative resistance, f.m. of, unwanted a.m. in, **1347**
using nonlinear reactances, **686**
nonlinear, graphical representation of resonance for, **1018**
pulse, using junction-transistor circuits, **3504**
using Type-6218 beam-deflection valve, **3171**
RC, comparison of shunt-*R* and shunt-*C* types, **685**
phase-shift, minimum-attenuation *RC* networks for, **2891,** single-stage, design of, **1717,** theory of, **2890**
pseudoresonant and phase-shifting quadripoles as frequency-determining elements in, **364**
three-phase, for 0·01 c/s–1 kc/s, **2042**
using twin-T feedback network, **673, 1345**
reactance-valve-controlled, for wide frequency sweep, **2883**
reflex-klystron, frequency stabilization of, **93**
sawtooth, using gas-filled triode with small control current, **1351**
spark-type, for mm λ, investigation of power spectrum with Boltzmann interferometer, **1865**
square-wave, analysis of operation of, **1349**
using transistors, **1718**
for multifrequency pulsing in telephony, **1005**
of Type CK-722, **2597**
triode, characteristic equation of, **682**
u.h.f., using disk-seal triodes and coaxial resonators, **365**
variable-frequency, using disk-seal triodes, **684**
valve, analysis of operation of, **3500**
effect of harmonics on frequency and resonance curve of, **2600**
with frequency dependent on circuit reactance variation, **2041**
synchronized, pulling effect in, **2018**
variable-frequency, controlled by single crystal, **2759**
v.h.f., variable, with helical-line tuning element, **2043**
wide-band, with conical helices in tuning circuit, **2342**
Wien-bridge, design curves for, (**D**)**3499**

Particle accelerators, bevatron, magnetic deflector for, **3324**
cosmotron, (See also Particle accelerators, synchrotrons, proton) orbital instabilities in, **2484,** due to nonlinearities in, **1532**
strong-focusing, relation between diameter and pole-piece profile, **1873**
cyclotrons, beam energy determination by time-of-flight method, **3321**
double-mode, **1872**
fixed-frequency, for heavy ions, **3322,** theory of, **495**
focusing of beam from, use of strong-focusing lenses for, **3320**
ion source for, **3644**
shifting inter-dee ground surface in, **2190**
with source producing partially stripped heavy ions, **1871**
60-in., at University of Washington, **3323**
electron cyclotron, favourable operating conditions for, **1528**
electron cyclotron (microtron), vertical focusing oscillations in, **818**
for X- and K-band operation, **3013**
4·5-MeV, design and operation of, **494**
ion sources for, **3642**
linear, with alternating-gradient focusing, **2738**
Alvarez-type, axial field of, **3327**
for electrons, effect of anomalous attenuation in, **497,** with preliminary bunching, **1874, 2486,** motion of electron in, **3015,** 15-MeV, at Harwell, **226**
for ions, divergence at gaps in, **1875**
travelling-wave, 8-MeV, at Hammersmith Hospital, **1533**
palletron, collector characteristics of, **3647**
strong-focusing, effect of nonlinearity of magnetic field in, **1529**
stability and periodicity in, **1530**
synchrocyclotron, fixed-frequency, **2189**
regenerative-deflector extractor mechanism for, analysis of, **3643**
450-MeV, r.f. power supply for, **2483**
synchrotron, electron, Berkeley, fine structure of photon beam from, **3645**

Particle accelerators, synchrotron, proton, at Birmingham University, **820,** cosmotron, at Brookhaven, **821,** phonic-motor drive for speed control of capacitor in **3326,** variable-frequency, oscillator switching for, **496**
strong-focusing, overcoming critical-energy effect in, **2737,** effect of alignment errors in, **1531,** effect of field bump in, **3014,** for electrons, **3646,** orbit stability in, **819,** space-charge forces in, **2485**
with two-stage acceleration, **3325**
Particles, charged, diffusion in radial electric field, **1393**
trajectories of, at relativistic velocities, **3203**
Permeability, at cm and mm λ, measurement of, **801**
complex, of spherical ferromagnetic particles embedded in dielectric, **442**
of semiconducting ferromagnetics, theory of measurement of, **2724**
Phase measurement, using a.c. potentiometer, **485**
a.f., using *RC* phase shifter, **206**
using c.r.o. and *RC* network, **2721**
from frequency variation of oscillator, **1855**
meter, a.f., with signal-limiting circuits, **3307**
based on sawtooth-pulse generation, **484**
Phosphors, absorption coefficient of, determination of, **3237**
alkali-halide, single-crystal, Tl-activated, growth and luminescence of, **1439**
alkaline earth polysulphides, luminescence of, **750**
CaF_2-Ce-Mn, **3236**
for c.r. tubes, efficiency of, **431**
crystal, electron traps in energy levels of, **3567**
decay times with ultraviolet excitation of, determination of, **1503**
electroluminescence of, **2110**
electron penetration into, experiments on, **1784**
with emission spectra in region beyond 1 μ, **3234**
fluoride, Mn-activated, **2961,** fluorescence under cathode-ray excitation of, **1785**
halide salts of group 2 metals, properties of, **3570**
inorganic, luminescence of, conference on, **2958**
large activator centres in, studies on concept of, **749**
light yield of, under electron-beam excitation, **1442**
multiply activated, electroluminescence spectra of, **2107**
NaCl(AgCl), with high-energy irradiation, **1070**
organic, under c.r. excitation, decay of, measurement of, **1504**
organic and inorganic, excited by α particles, luminescence of, **2112**
photoconductivity and luminescence mechanisms of, **1437**
photocurrent in, effect of illumination intensity, field strength and temperature on, **1776**
powder, in dispersions, luminescence of, **2956**
Sb_2O_3, with and without Mn, properties of, **158**
Sb_2O_4-Mn, with orange luminescence, **3571**
secondary emission from, effect of organic vapour on, **2111**
semiconductor type, electroluminescence of, **3569**
sulphide, quenching action of alternating field on, **1780**
ZnO, excitation by low-energy phosphors of, **2114**
optical absorption and internal photoeffect of, **3568**
"hex ZnO:(Zn)", excitable by very-low-velocity electrons, **2113**
ZnS, electroluminescent, preparation of, **1786,** preparation and properties of, **2962**
investigation of traps in, **429**
relation between darkening and luminescence of, **1438**
ZnS and ZnO, electroluminescence of, temperature variations of, **2109**
ZnS-Cu, colour of luminescence of, dependence on Cu concentration of, **3239**
continuously excited, effect of electric field on, **3238**
effect of neutron bombardment on, **2957**
ZnS-Cu-Co, properties of, **430**
ZnS-Mn, electroluminescence of, **1783**
poisoning effects of Fe, Co and Ni in, **1782**
(Zn, Cd)S, under X-ray excitation, effect of electric field on, **2959**
(Zn, Cd)S-Cu, decay with variation of frequency of applied field, **1781**
Zn_2SiO_4-Mn, production of 6100-Å emission band in, **1441**
$\beta Zn_3(PO_4)_2$, $Cd_3(PO_4)_2$–Mn, **3235**
Photocells, Ag-O-Cs and Sb-Cs types, for far ultraviolet, **1956**
applications in optical transducers, **3640**
barrier-layer, inertia phenomena in, **2801**
Se, fatigue in, **1251**
Cs-Ag, in pyrometer, **493**
Cs-Sb, effect of adding other elements to, **1611**
Cu_2O, prepared in h.f. field, spectral sensitivity of, **1613**
definitions of terms, I.R.E. standard 54 I.R.E. 7S1, **3394**
electron-multiplier, with Cs-Sb photocathode, dark current of, **2800**
fatigue in, **3077**
gain of, stabilization of, **1957**
large-amplitude background-noise pulses in, **1958**
work of the Zürich Institut für technische Physik on, **1610**
and electron multipliers, for far ultraviolet, **1956**
Ge, p-n junction phototransistors, shot dependence of noise in, **2544**
PbS, preparation of, **3716**
speed of response and detectivity of, **1250**
PbSe and PbTe, **285**
photoconductive, detectivity as figure of merit of, **1612**
photoemissive, alkali, review of, **1608, 2261**
with two anodes (photodianode), application to measurements, **1249, 2543**
with r.f. amplifiers, for detecting fluctuations of light sources, **697**
Se, response to X rays of, **1609**
Si, p-n- junction, for converting solar radiation into electrical power, **2779, 3076**
spectral response of, effect of illumination fatigue on, **1959**
Photoconductive materials, (See also Semiconductors)
insulating, alkali halides, electronic Hall effect in, **2686**
electronic Hall effect in, **2687**
luminescence in infrared region, **2691**
PbS, PbSe and PbTe, optical constants of, **2105**
PbTe, measurements of Hall effect in, **1111**
Photoconductivity, (See also Semiconductors)
bulk, in PbS, **2103**
in PbS single crystals, **1778**
of CdS, variation with illumination of, **3266**
of CdS single crystals, **1118**
effect of temperature and oxygen on, **1478, (C)3602**
in gold-doped Ge, **2688**
at high field strengths, interpretation of experiments, **157**
of infrared-sensitive materials, **156**
of InSe evaporated films, **1777**
negative, of cuprite, **2448**
of PbSe, delayed effects in, **777**
of solids and liquids, space-charge polarization effects in, **1024**
Photoelectric effect, in CdS films, significance of deep traps in, **3267**
influence of external field on, **104**
internal, quantum-statistical treatment of, **1456**
of semiconductors, effect of chlorophyll on, **1779**
in thin Bi films, **773**
Photoelectric emission, of Cs_3Sb, experimental study of, **1472**
Hall effect in, **1473**
from thin films of BaO, experimental investigation of, **2689**
of W, in region of predicted Schottky deviations, **155**
Photoelectromagnetic effect. See Semiconductors.
Physical constants, of small samples at dm λ and cm λ, measurement of, **3291**
Physical systems, equations of, solutions of, set of principles for interconnecting, **202, 2164**
Physics, statistical estimation in, **1370**
Pickups, arm for, low tracking error design for, **3446**
velocity-type, capacitive, for measurements on vibrations of structures, **319**
Piezoelectric crystals, (See also Quartz)
coefficients of, methods for measurement of, **2720**
DKT, elastic and piezoelectric coefficients of, **3248**
double tartrates, dielectric properties of, **1836**
elastic and piezoelectric constants of, **1791**
linear equations of state for, **110**
$PbZrO_3$-$PbTiO_3$ solid solutions, experimental investigation of, **3247**
plastic deformation of, **2149**
survey of properties and applications, **2411**
Plasma, in constant magnetic field and oscillating electric field, conductivity of, **2364, 3196**
current collected by probe in, **3531**
electron, in presence of constant magnetic field, conductivity tensor of, **1031**
generalized ionization formula for, **1387**
ionization and recombination processes in, **1045**
in magnetic field, e.m. properties of, **2925**
oscillations, dipole resonant modes of, **3532**
excitation of, **2371,** by electron beams, **2638**
in gas discharge, **2369**
in metals, theory of, **1023**
Potential, theory of, boundary-value problems in, uniqueness proofs for, **1731**
Potentiometers, a.c., oblique-coordinate, **212**
precision, for gunlaying control systems, **3316**
for 1–10^5 μV at frequencies up to 1 kMc/s, **2728**
Power measurement, in e.m. field, use of Hall effect in semiconductor for, **1856**
at microwave λ, automatic milliwattmeter using thermistor for, **1864,** bolometer bridge method for, **3294**
at r.f., calorimetric method for, **810**
at u.h.f., based on force on shorted ring in cavity, **1140**
supplies, (See also Batteries; Generators)
current-stabilized, for photomultiplier, **3688**
d.c., stabilized, low-internal resistance, **3686**
for electronic devices, using radioactive source, **859**
high-stability, for microwave standards at N.B.S., **1190**
h.v., stabilized, for mm-λ klystrons, **3363**
for inductive loads, using thyratrons, **262**
with low-shunt-capacitance transformers, for direct-coupled amplifiers, **3362**
mains, harmonics in, measurement of, **3001**
p-n junctions bombarded by β particles for, **1799**
r.f., h.v., ferroxcube-cored transformers in, **3687,** for 450-MeV synchrocyclotron, **2483**
stable, comprehensive, for precision measurement, **1924**
stabilized, for about 1 kV, **1585**
standby equipment for Manchester-Edinburgh television relay stations, **263**
thermoelectric generators, efficiency of, **3364,** Si p-n junction for, **2779, 3076**
using transistors, for G-M counters, **3361**
using unequal series capacitors to multiply battery voltage, **3045**
Probes, low-input-capacitance, **1514**
Public address systems, with inductive coupling between microphone transmitter and receiver, **2765**
Pulses, Gaussian, production and advantages of, **1905, 2504**
interferences between trains of, **238**
in noise, detection of, **150**
power of, measurement of, diode voltmeter for, **2998**
repetition frequency of, multiplication and division of, **3506**

Pulses, technique, valves as nonlinear and switching elements in, **1006**
trains of, measurements on, using peak-voltage rectifier circuit, **2170**
transmission of, fundamental theory of, **2763, 3352**
with varying carrier frequency, frequency spectra of, **2213**

***Q* factor,** low values of, method of computing, **2875**
meter readings of, correction of, **3622**
Quartz crystals, anelasticity of, **1838**
contoured, thickness-shear and flexural vibrations of, **1697**
for filters, characteristics of, **86**
harmonic oscillations of, **353, 1272**
with incomplete electrodes, thickness-shear vibrations of, **1698**
large, hydrothermal synthesis of, **459**
manufacture of, **2150**
polarity indicator for, **209**
properties and manufacture of, **667, 1696**
quality of, equipment for testing, **2175**
resonators, BT-cut, 7-Mc/s, effect of pile irradiation on frequency of, **3610,** flexural-mode, properties of, **354,** measurement of parameters of, (C)**1520**
for standard-frequency oscillators, location and frequency measurement of, **470**
suppression of overtones by electrode shaping, **1699**
thin, machine for production of, **788**

Radar, airborne, reduction of gust loads by use of, **1069**
audar audio system for simulating, **148**
back-scattering cross-section, of dipoles, comparison method of measurement, **2310**
of two identical nonstaggered unloaded aerials, **2312**
and communication theory, relation between, **740**
with c.r.-tube display, screen definition in terms of 'information cells', **743,** (C)**2408**
using transistors, **151**
Decca Type-424 airfield equipment, **154**
detection of snow formation by, **2405**
development of, in Great Britain, **1432**
false echoes in line-type pulsers, elimination of, **3228**
fluctuating echo from randomly distributed scatterers, interpretation of, **741, 742**
general-purpose, high-definition, for 3-cm waveband, **1068**
harbour-system, beacon for ship identification, **2952**
for Rotterdam, plans for, **1435**
height indicator Type IS330, **1775**
marine, commercial, British, **1436,** Kelvin Hughes Type-2C, with 50-mile range, **423**
for preventing collisions at sea, **152**
reduction of sea and rain clutter by logarithmic receivers in, **2953**
survey of progress in, **2101**
U.S.A., with 16-in. p.p.i. display, **531**
meteor location by. See Meteors.
minimum usable signal in reception, **2098**
moving-target-indication, receiver, L.C.T., with elimination of fixed-target echoes, **2407**
simple calculation of ground clutter attenuation in, **1066**
optimum pulse-integration angle and system sensitivity of, **738**
p.p.i. display, relay system for, **425**
precipitation clutter, circular polarization for reduction of, **2100**
measurements at 8-mm λ, **1774**
precipitation echoes, measurement of rainfall by, **424,** errors in, **2404**
polarization of, **1773**
work of Research Centre for Microwave Physics at Florence on, **739**
primary, a.f.c. for, **2679**
pulse, false-alarm time in, **2950**
superregenerative receivers in, **2097**
ranging, errors due to loss of echoes in, demodulator giving reduction of, **2681**
responder, passive, comprising resonator with crystal, **744**
scanning systems, assessment of, **2682**
for storm detection, choice of λ for, **2951**
echoes from thunderclouds, **415**
equipment at Entebbe airport for, **153**
surveillance, secondary, for air traffic control, **2099**
tracking, target glint, theory of, **737**
tunable, long-line effects on, **1433**
waveguide components for, hybrid-ring method of testing resistance to breakdown, **2476**
50-cm λ, study of lightning streamers by, **1063**
Radiation, (See also Aerials)
Wien's displacement law, value of constant in, **376**
Radio progress, I.R.E. review for 1953, **2273**
stations, coastal, British, re-equipment of, **1580**
receiving, B.B.C., Tatsfield, measurements and services performed by, **2210**
relay, long-wave, **3042**
technology, application of theory of numbers in, (C)**790**
theodolite, for tracking radiosonde, **422**
——astronomy, (See also Cosmic radiation; Solar radiation)
Crab nebula, distribution of radio brightness across, **3545**
d.c. comparison radiometer for, **2205**
distance of radio stars, measurement of, **3205**
fundamental results and problems of, **126**
interferometer for, wide-band, **2658**

Radio astronomy, interferometer for, for 4-kMc/s solar noise observations, **3204**
observations of 21-cm H line, from Magellanic clouds, **3544**
radio-star scintillations, relation to spread F, **3214**
review of theory and technique, **390, 1407**
search for 210-Mc/s emission from Orion nebula, **396**
survey of progress in, **1411**
symposium at Jodrell Bank, July 1953, **714**
use of known cosmic r.f. sources for checking aerials and receivers, **2376**
Washington conference 1954, **2378**
158·5-Mc/s survey of Milky Way, **1409**
1·89-m survey of localized sources in Northern Hemisphere, **1408**
1953 Halley lecture on, **395**
——links, (See also Communication systems; Radiotelephony; Radiotelegraphy; Television)
Berlin/Hamburg, v.h.f., Höhbeck relay station, operation and equipment of, **539**
Berlin/Leipzig, **560**
Chasseral/Mont-Afrique, transmission tests on, **1577**
f.m., Berlin/Harz, reliability of, **2498**
C.C.I.F. recommendations relating to, **2220**
multichannel, frequency-spectrum calculation for, **248**
u.h.f., for telephony, experimental equipment for, **2218**
microwave, I.R.E. symposium on, New York, Nov. 1953, **2771**
multichannel, Australian, with double f.m., **1576**
planning of, c.w. tests and equipment for, **257**
s.w., Tangier station, **1917**
in 6·7-kMc/s range, providing 8 p.a.m. channels, for Gulf coast railroad operation, **2219**
Radiosonde, at Poona, ground equipment for, **1154**
Radiotelegraphy, (See Communication systems)
frequency-shift system, equipment of Perth/Melbourne link, **525**
four-channel, **3038**
sine-wave keying for, **3037**
two-channel system used in U.S.S.R., **3355**
use of diversity reception to reduce message errors in, **3036**
long-wave, Mainflingen station, equipment of, **1918**
Radiotelephony, (See also Communication systems; Radio links)
Admiralty equipment Type 619, **526**
using a.m., comparison of d.s.b. and s.s.b. systems, **1173**
f.m., u.h.f., experimental equipment for, **1574**
Frankfurt/New York service, voice-operated switching system, **1912**
harbour-system, v.h.f., Japanese, **3679**
m-A links for mountainous country, **3678**
selective calling systems for, **848**
station, located on 4000-ft peak, installation and maintenance problems, **855**
subscribers' links, **3040**
u.h.f., using frequency diversity within a single channel, **3356**
u.s.w., for mobile services, survey of, **527**
v.h.f., multichannel, design of equipment for, **1575**
Rain, charge on, and electric field in thunderstorms, **413**
radar for measurement of, **2404**
relation between current and rate of rainfall, **139**
Reactors, saturable, with inductive d.c. load, transient response of, **2588**
Receivers, (See also Radar; Television)
a.m., codan anti-noise device for, **524**
broadcast, a.m., experimental, using transistors, **836, 2206, 3022**
assessment of performance of, **517**
f.m., mobile, with wide-band limiter and discriminator, **2501**
f.m./a.m., design of, **3346**
German, from 1945 to 1953, **514,** 1953/1954, circuit refinements of, **515**
v.h.f., post-war development in West Germany, **1897**
communication, G.E.C. Model BRT400, modifications to, **516**
for telegraphy and s.s.b. telephony in German overseas service, **2500**
for West German teleprinter service, **3670**
for 60 kc/s–31 Mc/s, model CAT, **2760**
conelrad, with carrier-failure alarm, for civil defence, **1170**
f.m., experimental, portable, using transistors, **838**
with nonideal demodulator characteristic, interference in, **2502**
highly selective, for receiving time signals, **518**
logarithmic, using successive-detection principle, **3345**
mean noise-input power to, minimum detectable change in, **2208**
microwave, noise factor of, monitoring of, **3290**
multiple-heterodyne, using v.f.o. controlled by single crystal, **2759**
with square-law detectors, first-probability density functions for, **837**
superheterodyne, panoramic, response of, **2755**
wide-band, microwave, using microstrip components, **1296**
superregenerative, in pulsed radar systems, **2097**
s.w., permeability tuners for, design of, **2758**
Reception, (See also Field strength; Television; Wave propagation)
cross-modulation effect in field of high-power transmitters, **3384**
diversity and other methods for overcoming fading in, **1172**
dual-diversity system, analysis of, **2756**
in noise, correlation method of, **3344**
synchronous magnetic recorder for, **241,** design of, **242**
polarization diversity system for, evaluation of performance of, **839**
of signals in noise, nonlinear filters for, (D)**3024**
of weak a.m. signals, using linear detection, **240**
Recorders, (See also Sound recorders)
direct-indicating, survey of, **2176**
magnetic, synchronous, for detecting weak signals in noise, **241, 242**
Rectifiers, (See also Semiconductors; Valves, crystal)
barrier-layer, for measurement of very small voltages, **1501**

Rectifiers, Cu_2O, characteristics of, **462**
in electrical measurements, survey of field of application, **3299**
hysteresis in, and in thin films, **3249**
ignitron, developments in, **861**
p-phase, analysis for, **2225**
Se, d.c. characteristics of, **190**
dynamic phenomena in, **778**
effect of CdSe intermediate layers in, **1819**
factors in application of, **1191**
heating problem in, **860**
Se-HgSe, experimental investigation of, **3690**
Se-disk, in digital computers, **3146**
as voltage-dependent resistors, **3689**
selenide/metal, properties of, **3691**
Reflection, (See also Sound; Wave propagation)
of acoustic and e.m. waves, by arrays of cylinders or bosses, **3514**
of e.m. waves, field at caustic due to, **3535**
at inhomogeneous surfaces, **628**
total, of e.m. waves, effect of proximity of metal plate on, **1039**
Refractive index, (See also under Atmosphere)
of insulating materials, at mm λ, **1840**
Regulators, alternating voltage and current, mains unit, **2227**
Relay systems. See Communication systems, Radio links and Television.
Relays, for airborne electronic equipment, design of, **347**
electromechanical, design of, **1192**
e.m., for military electronic equipment, standardization of, **2229**
Research, in British Post Office Engineering Department, **3429**
institutes, electrical engineering, Italian, Galileo Ferraris, **1630**
at Microwave Physics centre, Florence, during 1952, **3430**
Resistance, of cylinder, for specified boundary conditions, variational method for calculation of, **1732**
very high, measurement of, **214, 2729**
Resistivity, of alloys, effect of cold work on, **2118**
of Cu, Ag and Au, extra-resistivity due to vacancies, **1794**
of elements, alloys and compounds, at pressures up to 100000 kg/cm², **1450**
of metals, heated by high-current-density pulses, **3574**
at h.f., variation in magnetic field, **2913**
and lattice defects, **160, 2117**
of powders, measurement of, **474**
Resistors, carbon, conductivity and noise of, **343**
carbon-film, for waveguides, method of production, **3480**
coaxial, cylindrical, r.f., design of, **2019**
composition, current noise in, **2328**
frequency variation of resistance of, **654**
fixed, design trends in, **3479**
high-resistance, using charge-carrier device, **3150**
nonlinear, SiC, experimental investigation of, **3482**
with SiC base, **434**
precision, bobbin-type, power rating of, **2585**
standard, Au-Cr, behaviour under load, **2719**
wire-wound, design of, nomogram for, **2326**
Resonators, (See also Piezoelectric crystals; Quartz crystals)
acoustic, absorption measurements on, **1643**
dependence of natural frequency on elastic constants of, **922**
design of, **1644**
Helmholtz, with damping screen, impedance of, **941,** near field of, **1645**
cavity, conical-line, calculations for, **1331**
cylindrical, effect of distortion on, **1330**
design charts, **2335**
determination of resonance properties of, **1701**
elliptical, operating in TE_{111} mode, **990**
field distribution in, measurement of, **1853**
interaction between classical electron and quantized field in, **991**
measurements on, **799**
with openings, natural vibrations in, **2334**
perturbation effects and their applications, **79**
spherical, use of degenerate modes in, **78**
temperature-compensated at two frequencies, **668**
weakly coupled systems of, equivalence theorem for, **1700**
e.m., with energy losses at boundaries, characteristic functions of, **1702**
piezoelectric-crystal, partially plated, resonance-frequency shift due to proximity effect in, **2340**

Sampling, sequential, for attributes, practical application of, **1846**
Scattering, (See also Sound; Wave propagation)
of acoustic and e.m. waves, by arrays of cylinders or bosses, **3514**
of e.m. waves, by ellipsoid, approximate solution for field, **707**
solutions for field as power series, **706**
by turbulent atmospheric fluctuations, **2747**
at uneven surfaces, **380**
Screening, of amateur transmitters, effectiveness of materials for, **2530**
effectiveness of, measurement of, **2223**
using metal screens, nomogram for, **2513**
steel sheet for test rooms, **2777**
with transparent coated glass, **1922**
Seals, ceramic/metal, using W-Fe bonding layer, **2455**
glass/metal, review of, **789**
Semiconductors, (See also Photoconductivity; Photoconductive materials; Photoelectric effect)
αFe_2O_3, electrical properties of, **2433**
B and Se, r.f. absorption bands in, **2120**
BaO, diffusion of coloration in, **1114**
Semiconductors, BaO, single-crystal, optical absorption and photoconduction in, **1115**
(BaSr)O, structure of, cathodoluminescence study of, **3240**
CaO, conductivity of, experimental investigation of, **1809**
carborundum, luminescence on passage of current of, **2415**
carrier formation and relaxation on illumination, **2967**
carrier injection in, effect of traps on, **1797**
CdO, optical absorption of, **3230**
CdS, conductivity of, effect of oxygen on, **1812**
conversion of *n*-type to *p*-type by local heating, **1474**
electron-irradiation-produced conductivity of, **3592**
films, optical and electrical properties of, **2706**
Hall-effect measurements on, **1813**
single crystals, breakdown and light emission in, **2960,** noise in, frequency dependence of, **3601,** properties of, **1814**
traps in, due to incorporation of oxygen, **1811**
ceramic, technical and bibliographical survey of, **3611**
charge-carrier lifetime, deduced from Hall coefficient and resistivity, **1075**
compounds of Group II–Group VI and Group III–Group V elements, relation between ionicity and energy gap, **2698**
compounds of Group III and Group V elements, **1454**
experimental determination of properties of, **1798**
single-crystal, preparation of, **2138**
conduction in impurity bands of, **1451**
conduction mechanisms in, **432**
conduction in strong electric fields in, equations for, **3519**
copper-oxide, formation of intermediate layer below, **3597**
Cu_2O, absorption spectrum of, effect of electric field on, **3596**
conductivity of, **1815**
photomagnetic effect in, **3232**
properties of, (**C**)**436, 437, 438, 2432, 3593, 3594, 3595**
Cu_2S, conductivity of, diffusion theory for, **1119,** experiments on, **1120**
with diamond-type lattice, annealing bombardment damage in, **1477**
dielectric relaxation and carrier motion in, exact treatment of, **753**
edge dislocations in, trapping energy associated with, **3250**
effect of strong fields on, theory of, **2416**
electronic spin in, chemical approach to theory of, **2623**
energy-band theory of, differential equations for, **1796**
Fermi energy in, graphical method for determination of, **1453**
ferromagnetic, ceramic, manganites, experimental investigation of, **3604**
filaments, mechanism of noise generation in, **1100**
films, conductivity of, effect of applied e.s. field on, **1452**
Ge, annealing bombardment damage in, **1469**
atomic heat below 4°K, **1090**
blocking contacts with evaporated metal films on, **2979**
cast, twinning in, **2123**
collision frequency of holes in, **1087**
containing compensated impurities, properties of, **2126**
conductivity of mechanically disturbed surfaces of, **1086**
conductivity at $2{\cdot}4 \times 10^{10}$ c/s, **1088**
Cu-doped, energy level at 0·3 eV in above valence band, **3263**
cyclotron (diamagnetic) resonance in, **1468,** directional properties of, **2423**
diffusion in, **2128**
diffusion of impurities in, **3260**
diffusivity and solubility of Cu in, **2430**
drift mobilities in, **1462**
effect of magnetic field on, **3590**
effective mass of conduction electron in, **1461**
electrolytic polishing of, **455**
energy bands in, calculation by orthogonalized plane wave method, **2428,** degeneracy of, **1465,** (**D**)**2427**
etches for, **1470**
evaporated films, change of refractive index on illumination of, **3265**
evaporation of Cu from, **167**
filaments, noise in at v.l.f., **2705,** shot noise in, **171**
gold-doped, electrical properties of, **1089**
high-field effects in, **2976**
impurity concentrations in, method of estimating, **1464**
impurity-containing, secondary emission from, **762**
infrared absorption by free carriers in, **1081**
infrared refractive index of, **2131**
injected carriers in, infrared absorption of, **169, 1083,** recombination radiation in, **1084,** recombination rates for, **2977**
investigation over the intrinsic range, **3257**
lattice-scattering mobility in, **1806**
magnetic susceptibility of, **1467**
mechanical properties of, **1095,** temperature variation of, **1094**
with neutral impurities, infrared photoconductivity of, **1808**
n-p junction, increase of reverse current with humidity, **3586,** surface conduction channels in, **3585,** surface conduction channels and excess reverse current in, **3587**
n-type, galvanomagnetic effects in, theory of, **2425,** investigation of trapping in, **2130,** measurements on, and semiconductor theory, **2127,** single-crystal, measurement of surface properties of, **3261**
phenomena observed on melting and solidifying, **3588**
photomagnetoelectric effect in, **2104,** and photodiffusion effect in, **748**
p-n junctions in, preparation by surface melting, **1807,** production by recrystallization from In solution, **2447** secondary electron emission from, **2132**

Semiconductors, pressure dependence of resistivity of, **1466, 3264**
production of acceptor levels by plastic deformation, **2124**
p-type, with Au and Cu impurities, infrared absorption and photoconductivity in, **2426,** Hall coefficient and mobility in, **2975,** infrared absorption of, **756, 1082,** *n*-type surface conductivity on, **166**
recombination in, effect of Ni and Cu on, **2429,** at lineage boundaries in, **3259,** photon-radiative, **3258**
relations between impurity content, resistivity and Hall coefficient, **454**
resistivity of, measurement of, four-probe method for, **1502,** modulation by ultrasonic vibrations, **164**
resistivity striations in, **2704**
Seebeck effect in, **3262**
single crystal, grown by withdrawal from melt, radius of, **2990,** mosaic structure on, **2974,** solubility and ionizability of impurities in, **1463,** temperature regulator used in production of, **1788, 2409,** thermally induced acceptors in, **170**
solubility and diffusion of Ni in, **3589**
surface conductivity of, effect of ambient medium on, **2424,** oxygen-induced, **168**
surface recombination velocity in, temperature dependence of, **1085, 2978**
thermal conversion from *n* to *p* type, **435**
thermoelectric power of, measurements of, **1091,** below room temperature, **1093**
twin boundaries in, passage of carriers across, **2431**
vacuum-heat-treated, thermal acceptors in, **755**
Ge and Si, alloys of, equilibrium thermochemistry of, **2419, 2420**
crystallizing from melt, shape of molten zone in, **1804**
direct measurement of permittivity, **1803**
electron multiplication in wide *p*-*n* junctions, **1079**
growth of crystals, segregation of impurities during, **2417**
in liquid state, surface tension of, **188**
mobility of Li and Cu impurity ions in, **1802**
photomagnetoelectric effect in, **3231**
piezoresistance effect in, **2418**
p-*n* junctions, electron-voltaic effect induced by β particles in, **1799**
production of acceptor centres by compression in, **1460**
resistivity of, measurement of, **807**
single crystals, elastic constants of, **189,** large, preparation of, **460**
Ge, PbS, PbSe, and PbTe, making stable contacts to, **3280**
general Hall-effect equation for, **165**
grey tin, electronic conduction in, **2135**
magnetic properties of, **1476**
mechanism of conduction in, **1475**
Hall effect in, graphical representation of, **3251**
isothermal, theory of, **433**
impurity, band structure in, **2413**
intermetallic compounds, CdSb, experimental investigation of, **1099**
InAs, properties of, **3268**
InSb, anomalous optical absorption limit in, **2134,** conductivity measurement on, significance of, **3269,** effects of neutron irradiation in, **2133,** electrical properties of, **2707,** electrical properties of at low temperatures, **2981,** experiments on, **1816,** Hall effect and conductivity of, **758,** optical properties of, **1098,** photoeffects in, **3233,** variation of properties at melting point, **3573**
$Mg_2Ge_xSn_{1-x}$, **1471**
Mg_3Sb_2, measurements on, **3591**
properties of, **2412**
internal photoeffect in, quantum-statistical treatment of, **1456**
isotropic, high-mobility, effect of magnetic field on, **3579**
junction layers in, capacitance of, **3577**
MgO, optical properties in vacuum ultraviolet, **2980**
sintered, conductivity and thermoelectric power of, **172**
minority carriers in, diffusion of, **1795**
lifetime of and contact-injection ratio in, **2129**
NiO, electrical properties of, **2434**
noise in, **2438**
Gisolf's theory of, **2139**
nonpolar, radiationless recombination in, theory of, **3576**
n- and *p*-type, current-carrier mobility-ratio measurement in, **162**
optical absorption in, theory of, **2106**
oxide, transparent films made of, **2435**
PbS, bulk photoeffects in, **1778**
effect of Sb content on, **2136**
energy gap of, further evidence for value 0·4eV, **2436**
energy levels of, calculations of, **2137**
impurity-type, superconductivity of, **1458**
PbS and similar binary compounds, interpretation of Hall effect and resistivity data, **1818**
PbSe, mobility of charge carriers, temperature dependence of, **163**
PbSe and PbTe, single-crystal and thin-film, electrical properties of, **2982**
phosphorus, black, electrical properties of, **1459**
photoconduction in, theory of, **3578**
photomagnetic effect in inhomogeneous magnetic field in, **3580**
photomagnetomechanical effect in, **2414**
'planar' Hall effect in, **3253**
p-*n* junctions in, formation by melting and re-solidifying, **2125**
model for study of, **1455**
point contacts to, electrothermal characteristics of, **111**
polar, theory of electronic conduction in, **381**
powders, *n*- and *p*-type, experiments on, **3252**
Semiconductors, powders, under pressure, conductance of, **2439**
resonant-cavity study of, **2437**
Se, amorphous, conductivity in strong fields of, **3583,** simulated crystal structure of, **2971,** structure of, and transition to crystalline state, **1077**
conduction mechanism in, **2700**
crystals, anisotropic resistivities at 200 Mc/s, **1076**
dielectric properties of barrier layers, **1490**
Hall coefficients of, isothermal and adiabatic, comparison of, **2699**
microcrystalline, pure and with metal additions, electrical properties of, **1801**
polycrystalline, conductivity of, frequency dependence of, **1800,** resistivity at high field strength of, **2972**
solid and liquid, conductivity measurements on, **3582**
sources of, **187**
Si, As-doped, spin resonance of, **3254**
with Au as donor, **1805**
avalanche breakdown in, **2973**
band structure of, cellular-method calculation of, **3584**
crystals, tip-fusion method for growth for, **2708**
drift mobilities in, **2421**
Hall mobility of electrons and holes in, **2703**
impurity levels in, optical investigation of, **2422**
n- and *p*-type, paramagnetic resonance in, **1080**
p-type, gold-doped, photoconductivity measurements on, **3256**
single crystals, induction-heating method for growing, **3255**
SiC, granular aggregates, nonlinear resistance of, **173**
infrared absorption spectrum of, **754**
SiC-base complexes, properties of, **434**
space-charge polarization effects in, **1024**
statistics applied to, **161**
sulphides of chromium, electrical and galvanomagnetic properties of, **1817**
Te, effect of thermally produced-lattice defects on, **3598**
properties of, at low temperatures, **2702**
single crystals, infrared properties of, **2122,** infrared refractive index of, **2121**
Te and Te-Se alloys, properties of, **2701**
theory of, review of, **439**
theory of systems, rectifiers and complexes composed of, **3599**
thermal and electrical conductivity of, relation between, **2968**
thermal rectification effect in, **1457**
thermoelectric power of, temperature dependence of, theory of, **2119,** theory of, **1092**
TiO_2 (rutile), ceramic and single-crystal, electrical properties of, **757**
use in voltage dividers with logarithmic characteristics, **2879**
ZnO, energy-level models of, **1810**
ZnS, single crystals, properties of, **1096**
Servomechanisms, (See also Control systems)
in analogue computers, **646**
analogue methods in design of, **1183**
application of statistical methods to, **1582**
components, l.f. response of, measurement of, **1850**
hydraulic, electronic simulator for, (**D**)**981**
linear, step- to frequency-response transforms for, **1921**
nonlinear, analysis by phase-plane-delta method, **3044**
with several independent variables, **858**
nonlinear feedback in to improve transient response, **1186**
sampling, application of pulse transfer function to, (**D**)**2222**
subject to large amplitude oscillation, stabilization of, **1187**
symposium of papers on, **2776**
third-order, graphical method of analysis of, **1188**
Signal generators, (See also Generators; Oscillators; Test equipment)
electromechanical, for testing servomechanisms, (**A**)**1867**
frequency-sweep, for range 20 c/s–200 kc/s, **487**
microwave, harmonic, **488**
Signals, band-limited, spectra of, **1908**
frequency spectra of pulses with varying carrier frequency, **2213**
Skin effect. See Conduction.
Snow, electrification of, **414**
radar for detecting generating level of, **2405**
Solar activity, effects on ionosphere of, **135**
and geomagnetism, correlation between, **1751,** indicated by yellow coronal line, **2643**
ionospheric and geomagnetic effects of flares, **1405**
prominences, bursts of r.f. radiation associated with, **392, 393**
quiescent, theoretical study of equilibrium conditions in, **1404**
theories depending on moving sunspot fields, **1403**
Solar corona, review of knowledge on, **2931**
Solar eclipse, corpuscular, effects on ionosphere F_2 layer, **2673**
25th Feb. 1952, anomalous variation of F_2-layer critical frequency during, **1422**
20th Aug. 1952, effect on ionosphere at Buenos Aires, **136**
Solar radiation, r.f., Bailey's theory of, **1400, 1401**
bursts, associated with solar prominences, **392, 393,** asymmetrical distribution at 4 m λ of, **2650,** directional effect in, **1043,** evidence of harmonics in spectrum of, **391,** from M regions, **1044,** Type III, as evidence of ejection of fast particles, **2377,** at 4·1 m, correlation with solar flares, (**A**)**2646**
equipment for measurements at 160 Mc/s and 9·350 kMc/s, **716**
fine structure of, and space-charge-wave amplification in shock front, **2644**
thermal, and source of coronal heating, **2645**
at λ 21 cm, observations of distribution over quiet sun, **715**
at λ 10 cm, observations during partial eclipse, **2647**

Soldering, using In, for thin metal films, **2154**
and welding, of Al to other materials, **787**
Sound, (See also Absorption; Acoustics; Diffraction; Reflection)
acoustic streaming, at high Reynolds numbers, **927**
at low Reynolds numbers, **926**
acoustic streaming equations, **928**
attenuation of, in narrow tubes, **1635**
in rectangular duct with absorbent wall, charts for, **309,** experiments on, **310**
edge tones, at high jet speeds, analysis of, **924**
field, optical methods for displaying, **614**
spherical, force on sphere in, measurement of, **1637,** theory of, **1636**
high-intensity, microphones for measurement of, **320**
insulation, light-weight structures for, **2842**
intensity of, thermocouple-probe method for determination of, **2836**
loudness of, relation between sone and phon scales for, **1276**
true ratio scale for, **1652**
loudness level and loudness sensation, survey of work on, **1653**
magnetic damping of, in conducting media, **932**
magnetic dispersion in plates, **3433, 3434**
musical and vocal, modification of by integrator and differentiator circuits, **3437**
propagation of, in anisotropic medium, **296**
in ducts with rectangular bends, effects of discontinuities in, **2277, 2278**
in gases, in cylindrical tubes, theory of, **295,** translational and relaxational dispersion in, **1632**
in medium with random fluctuations of refractive index, **929, 931, 1633, 2275**
in open air, effect of wind on, **930**
theory of, based on nonlinear gas dynamic equations, **294**
of transient disturbance, in tubes, **611**
in tube with piston, analysis for, **2276**
in tubes, **612**
in water-filled pipes with zero-impedance walls, **308**
radiation of, from plates in flexural vibration, **949**
zonal radiators for, **3436**
radiation pressure, physics of, **1**
ranging, nomograms for, **3561**
for sea-depth measurements, development of, **1430**
rarefaction pulses, distortion of, **1269**
reflection, nonspecular, at rough surface of, **2282**
in open-ended tube, theory of, **2279**
scattering, application of variational principles to, **3105**
by reinforced cylindrical shells, **925**
in turbulent stream, **1270**
sources, circular piston, with transient loading, analysis for, **298**
linear arrays, directivity of, **936,** approximate calculation of, **937**
membranes, mass-loaded, theory of, **921**
plate, with transient loading, analysis for, **297**
power of, measurement of, **943**
pulse, underwater-spark, **490,** underwater-spark, for echo sounding, **223**
and receivers, directional-characteristic diagrams of, interpretation of, **7**
spectrography, applications in acoustics research, **3107**
transmission, through membrane stretched across tube, **1634**
through steel plates immersed in fluid, **307**
in structures, calculation of, **1277**
velocity of, in air at low pressure, measurement of, **615,** (**D**)**2552**
in liquids, measurement of, **1647, 1649,** measurement of for small quantities, **1648**
at low temperature, optical method for measurement, **3439**
measurement using ultrasonic-pulse equipment, **3109**
in ocean, measurement of, **1646**
in water, **1430,** dispersion of, experiments on, **2289**
200-c/s–4-kc/s, analysis of, correlatograph for, **58**
——**recorders,** magnetic, 'wow' tests for, **473**
——**recording,** disk, design interrelations in, **12**
film, using electro-optic crystal, **1663**
on glass disks, photographic technique of, **2848**
international conference, Paris, 1954, **2560**
magnetic, bibliography 1900–1953, **3119**
c.r.-tube monitor for, **1290**
distortion due to mechanical causes in, **3447**
effect of h.f. biasing in, **1289**
heads for, accurately dimensioned diamagnetic gaps for, **3448,** electron-tube beam-deflection type, **11, 1985, 3449,** ferrites in, **2846,** structure and performance of, **323**
multitrack systems, echo phenomena in, **2845**
outline of, **2295**
possible applications of, **1291**
print-through effect in, pre-echo and post-echo in, **1288**
stereophonic, for films, **1278, 1280**
studies on, **9, 324, 1287**
synchronization with film of, **2561**
tapes for, manufacture of, **620,** measurement of coercivity and remanence of, **2466,** measurement of speed of transport of, **1662,** measurement of surface induction of, (**C**)**3118**
combined with television recording, **2517, 2847, 3050**
——**recording and reproduction,** I.R.E. standard 53 I.R.E. 19S2, methods for determining flutter content, **1661**
magnetic-drum, variable time-delay device using, **322**
stereophonic, for cinemas, equipment for, **1279, 1281**
Sound reproducers, disk, design of, **12**
——**reproduction,** disk, distortion in, **313**
forces on pickup in, **2297**
measurement of distortion of, **476**
reduction of background noise in, **1658**
equipment for, review of exhibitions of, **2558**
magnetic, correction of frequency-response changes due to magnetic-head wear, **10**
c.r.-tube head for, **11**
electron-tube head for, cores for, **1985**
stereophonic, in the cinema, equipment for, **1282, 1355,** using multiple magnetic sound tracks, **619**
principles and applications of, **1651**
Spectrometry, mass, applications in the electronic industry, **3075**
Spectroscopy, microwave, using Stark cell, measurement of absorption coefficients by, **3540**
at 1–2-mm λ, experimental methods and results, **2079**
Speech, acoustic structure of, **944**
analyser, c.r.o. apparatus with coordinate converter for, **3440**
analysis, using magnetically recorded elements, **945**
communication methods, research on, **613**
experiments on, survey of, **2555**
identification by, **2839**
recognition of, with one and with two ears, **947**
sound spectrographs for, design of, **2840**
synthesizer, using magnetic-drum recording, **946**
waveform correlator for, **3113**
Spinels, (See also Ferrimagnetic materials)
physical and crystallographic properties of, **461**
Stability, of networks, Nyquist's criterion for, simple derivation of, **3489**
of third-order servomechanisms, graphical method of analysis of, **1188**
Stabilization, frequency, of reflex-klystron oscillators, **93**
of square-wave-modulated microwave transmissions, (**A**)**652, 2017**
of servomechanism subject to large amplitude oscillation, **1187**
of voltage, current and magnetic field, review of, **862**
Stabilizers, current, alternating, for valve-heater power supply, **865**
current and voltage, for laboratory use, survey of, **3046**
voltage, alternating, analysis of operation of, **3047,** using biased reactor, **1584,** using self-heating valves as variable resistance, **2824**
direct, for 0–300 V, **863,** for 70 V upwards, **2228**
effect of valve-heater-voltage variations on, **1925**
using series combination of glow-discharge tube and barretter, **1583**
Standard frequency transmissions, from MSF, expected accuracy of, **3289**
Standards, (See also Television)
definitions of terms, relating to aerials and waveguides, 53 I.R.E. 2 S1, **631**
relating to audio techniques, 54 I.R.E. 3 S1, **2876**
for linear-varying-parameter and nonlinear circuits, 53 I.R.E. 4 S1, **1693**
relating to photocells, 54 I.R.E. 7 S1, **3394**
relating to standard volume indicator, **2461**
electrical, accuracy of measurement of, (**D**)**1125**
flutter measurement in sound recording and reproducing, 53 I.R.E. 19 S2, **1661**
graphical symbols for electrical diagrams, 54 I.R.E. 21 S1, **3102**
on measurement of aspect ratio and geometric distortion, 54 I.R.E. 23 S1, **3053**
on measurement of interference from television receivers, 54 I.R.E. 17 S1, **3671**
Sun, distribution of r.f. brightness across, **2648**
and model corona, **2649**
Sunspot cycle, and ionosphere, review for 1953, **1060**
revised mean curve showing increased asymmetry, **2081**
and time distribution of geomagnetic storms, **3207**
with very long period, evidence for, **717**
Sunspots, magnetic field strength in, **1402**
magneto-hydrodynamic theory of, **1752**
Switches, a.t.r., window material and filling for, **3423**
electronic, ratchet device for increasing or decreasing intervals between pulses, **3153**
using ferrite-cored transformers, **3484**
proximity, effect of humidity variation on, **1526**
t.r., using gas-discharge tubes in, **2870**
Switching, in bistable circuits, device for observation on oscilloscope, **2590**
Synchronization, (See also Television)
for communication systems, theory and design of, **1563**
for power-generating stations, using c.r. tube, (**A**)**814**
pulling effect in, **2018**

Telecommunications, in British Commonwealth, **1565**
in Italy, coaxial cable network for, **13**
Telecontrol, 260
of receivers, over single Post Office line, **3685**
Telegraphy, code converters for interconnection of Morse and teleprinter systems, **2506**
codes and code converters, survey of, **2507**
review of progress since 1946, **2766**
tone systems, frequency spectra with amplitude and phase keying, **3354**
Telemetry, equipment for transmission of meteorological data, **815**
for guided missiles, **1525**

Telemetry, modulated-light-beam system for, **2481**
review of methods of, **(D)1523, 1870**
and telecontrol, of Van de Graaff generator, **817**
7-channel, parachute-borne unit, **2744**
Telephony, review of progress since 1946, **2766**
Television, (See also Aerials; Interference)
amateur, report of progress in, **541**
applications, in optics, **1932**
in particle counting, **1882**
in remote observation of moving object, **3382**
aspect ratio and geometric distortion, measurement of, standard 54 I.R.E. 23 S1 on, **3053**
bandwidth reduction in, techniques for, **(D)872**
bandwidth requirements for, **2234**
British system of, generation of picture signal in, **271**
receivers for, **2241**
transmission of picture waveform in, **873**
broadcasting networks, planning of, **532, 2785**
u.h.f., in Federal German Republic, **3380**
cameras, aperture compensation for, **1927**
image iconoscope, used at Bussum (Netherlands), **875**
image orthicon, **547**
imaging properties of, **3696**
lenses for, measurement of performance of, **2236**
photoconductive, for light and X-ray pictures, **1935**
signal/noise ratio and types of interference in, **1936**
supericonoscope Type IS 9 mm/10, **2239**
survey of, **548**
vidicon, for film transmissions, **2519,** for X-ray pictures, **2240**
centre, of N.W.D.R. at Hamburg-Lokstedt, **563,** architectural aspects of, **554,** electroacoustic equipment of, **3706,** heating, installations etc. for, **565,** switching equipment for, **566**
synchronizing-signal distribution at, **3379**
closed-circuit system using vidicon, **1198**
colorimetry in, **1199**
colour, amplitude distortion in, measurement of, **1151**
basic concepts and evolution of, **1199**
for Britain, band-I, use of adjacent channel for colour signal, **545,** possible systems for, **1590**
coaxial-cable transmission of, **1194**
colorplexer, **1193**
colortron, C.B.S., **1228**
compatible systems, investigation of, **1208**
converter for accommodating N.T.S.C. signal in coaxial-cable bandwidth, **536**
c.r. tube for, four-gun type, **559,** phosphor screens for, preparation of, **2248**
delay equalization in, **1210**
demodulators using heptodes or cascode-connected circuits, **2788**
determination of subjective white for, **265**
effect of receiver errors on colour reproduction, **3700**
electronic masking in, **1205**
film reproduction in, brightness modification proposals for, **1211**
image orthicon Type 1854 for, **1216**
kinescope, R.C.A. three-beam shadow mask, **1227**
matrix networks for, **1206**
N.T.S.C. compatible system, **1199, (C)3369,** adaptation of monochrome transmitters to, **1215,** colorimetric analysis of, **1201,** introduction to, **1589,** laboratory receiver for study of, **1229,** modification of signal to suit single-gun tubes, **3699,** outline of, **3367,** principles of, **270,** receiver circuits for, **1225,** receivers for, **1592,** receivers for, chromatron in, **1226,** reproduction of luminance detail by three different forms of, **1209,** sideband interference problem in, **870,** signal specifications for, **871,** signal specifications for, verifying adherence to, **1150,** signal specifications for, July 1953, **544,** synchronization in, **1588,** synchronization in, d.c. quadricorrelator for, **1224,** synchronous demodulators for, **1223, 1593,** synchronous demodulators for, pulsed-envelope type, **2245,** synchronous detector for, using product demodulators with beam-deflection tube, **2244, 2524,** test signals for alignment of Q and I demodulators, **2732,** transmission primaries in, **1200,** transmission of transients in, **543**
optimum use of channel space for, **542**
photoelectric colorimeter for, **1203**
psychophysical and electrical foundations of, **1199**
quantitative spectral measurements in, **1202**
receivers, deflection-coil assemblies for, **3065,** factory adjustment procedures for, **3377,** i.f. amplifier design for, **3701,** improving transient response of, **1222**
reproduction of colours in outdoor scenes, **1204**
subjective and objective aspects of colour rendering in, **(D)3368**
test gear for, **1152**
transients in, **1207**
405-line system, demonstration in London of, **2516**
community systems, line amplifiers for, **3066**
Coronation transmissions, technical arrangements for, **2231**
coverage of v.h.f. and u.h.f. transmitters, influence of terrain on, **1928**
c.r. tubes, production of X rays by, **2246**
yoke astigmatism in, **3704**
development of, **1920**
for countries with small sales, **3051**
Television, development of, recent, in U.S.A., **869**
distortion of video signal due to attenuation and phase distortion of system, **2515**
European exchange arrangements, summer 1954, **2780**
experimental equipment at Technische Hochschule, Vienna, **273**
gamma correction, for subjectively correct brightness scale, **2249**
links, cable, Birmingham/Manchester/Holme Moss, **1195,** London/Birmingham, **(D)2781,** phase-correction network for, **1196**
cable and radio, waveform-response specifications for, **3365**
radio, Belfast/Kirk o' Shotts, **867,** Cologne/Frankfurt/Neustadt, dm-λ, **538,** equipment for outside broadcasts, dm-λ, **537,** microwave, Manchester/Kirk o' Shotts, **2784, (A)3366,** microwave, Tokyo/Osaka, **2783,** pulse-regeneration equipment for, **558,** pulse-regeneration equipment at Höhbeck relay station, **2247,** transmitter for, f.m. magnetron oscillator in, **904,** u.h.f., Berlin/Leipzig, **2782,** u.h.f., Berlin/Leipzig, equipment of, **3693,** v.h.f., between Germany and Switzerland, **3694**
and motion-picture systems, image structure in **1232, 1233**
in New Zealand, recommended standards for, **2235, 3054**
phase equalizers for, design of, **1933**
picture, characteristics of, **540**
picture quality, improvement by deliberate introduction of echoes, **3067**
influence of phase/frequency characteristic on, **1234**
optics in, applications of, **1932**
projection, for cinema, Russian system, **3373**
large-screen, Philips EL5750, **275**
receivers, image intensifier for, **3061,** increase of picture brightness in, **276**
Schmidt-type system, aperture-response testing of, **1594**
receivers, for Argentine standards, **1219**
band-III converter, **2242**
choice of i.f. for, **2520,** for bands I and III, **1938,** international enquiry on, **2787,** in relation to interference in, U.S. survey of, **3068**
d.c. component in, importance of, **552, 1220, (D)1937**
deflection system for, **3064,** with castellated ferroxcube cores, **3378,** design of, **2522**
detection in noise, **3703**
direct-drive line-timebase circuit for, **277, 2523**
Ge-diode detectors for sound in, h.f. effects in, **1230**
German review of, **550,** 1953/1954, survey of, **551**
interlacing in relation to synchronizing separators in, **2527**
measurements on, **2479, 3376, 3634**
using nonsynchronous power, design of, **549**
performance testing of, **3010**
picture distortion due to inexact tuning in, **3707**
printed-circuit, French, **1221, 3059**
production of, mechanization of, **556**
signal overload relay for, **2243**
synchronization of, flywheel systems for, **1941,** using symmetrical-transistor phase detector, **2525**
synchronizing-signal separator and a.g.c. system for, **554, 555**
tuner for, for bands I and III, **1939,** for bands I and III, valves for, **3417,** for channels 2–83, **553,** u.h.f., **535, 1940**
Type Leningrad T-2, **2521**
u.h.f., use of r.f. amplifier stage in, **2526**
with valve heaters in series, **3374**
v.h.f., 3-channel, 'Sever' model, **3698**
with 6-in. c.r. tube, ringing-choke h.v. unit for, **557**
625/819-line multichannel, **3060**
recording, film for, **1930**
magnetic-tape system, **2517, 2847, 3050,** possibilities of, **1291**
survey of methods for, **1931**
16-mm projector, for operation with television camera, **268**
35-mm-film camera for, **3695**
satellite station operation, **2232**
scanner, for colour films, **3372**
film, continuous-motion, **2237**
for film-negative scanning, **1934**
flying-spot, **1217,** with rotating-prism optical compensator, **2238,** for 16-mm film, **3371,** for 16-mm colour film, **3058**
preamplifier for use with iconoscope, **874**
standards converter, 819-line/405-line, **272**
station, on Feldberg, equipment for, **562**
studio, acoustic problems of, **567**
air-conditioning installations in, acoustical measurements on, **1656**
Bussum (Netherlands), equipment for, **877**
C.B.S. Television City, detailed account of, **3052**
equipment, light-trace marker, electronic, **3057**
lighting procedure for, **2529**
sound equipment for, at Bussum (Netherlands), **878**
special effects for productions, **561**
subscription systems, coin-operated, **1197**
synchronizing-signal generator, portable, **2233**
synchronizing signals, Australian standards, **3370**
test equipment, for scanning linearity in receivers, **811**
for television links, **210**
test-pattern generator for, **3009**
test films, 1953 S.M.P.T.E., **269**
for theatres, U.S.A. distribution networks for, **3049**
transmission systems, multiplex, **3692**

Television, transmission vans, picture mixer, 4-channel, **568**
transmitters, h.f. filters for, **361**
Leipzig, **560**
low-level-modulation, at Kirk o' Shotts and Wenvoe, **274, (D)2518**
u.h.f., using klystron power amplifiers, **3056,** Type-FTL 20-B, description of, **2786**
viewing, eye movements in, **1235**
Test equipment, (See also individual instruments; Television)
distortion and noise meter Type 1932-A, **216**
for harmonic response of linear systems, **(D)1147**
magnetron stability tester, **2477**
microwave, **2727**
block construction of, **2726**
pulse-echo meter for testing coaxial cable, **1136, 1868, 3293, 3623**
for quartz crystal quality, **2175**
S-band, with frequency-sweep generator, **486**
spark gaps for breakdown testing of waveguides, **800**
standard, for acoustic and electroacoustic apparatus, **2835**
for transient tests on electroacoustic systems, **1866**
Thermistors, characteristics and applications of, **653, 2327**
chart for finding resistance at given temperature, **3151**
as circuit elements, theory of, **3481**
manufacture of, **1327**
Thermodielectric effect, experiments on, **2620, 2621**
theory of, **3186**
Thermomagnetic effect, experiments on, **2928**
Time, (See also Clocks)
and frequency, measurement of, **(D)2165**
marker, using gas-filled counter tubes, for electrocardiography, **2186**
standards, atomic clocks as, **3615**
comparison of pendulum, quartz and atomic clocks as, **469**
Timebases, modified Miller type, with sweep durations of 5μs–15ms, **2607**
Transducers, application of negative feedback to, **617**
$BaTiO_3$, admittance/temperature characteristics of, **938**
cylindrical, sensitivity of, **2830**
directional, wide-band, for underwater operation, **315**
suppression of unwanted flexural vibrations in, **2280**
bimorph, rectangular, sensitivity of, theoretical determination of, **954**
electric and magnetic types, laws of force for, **953**
electroacoustic, bidirectional, **316**
equivalent circuits for, **3115**
for liquid-borne sounds, efficiency measurements on, **939**
mechano-acoustic, wide-band, using Helmholtz resonators, **923**
piezoelectric, with Hg backing, operating in water, characteristics of, **2281**
low-Q, equivalent-circuit constants of, **2829**
for remote indication of mechanical movements, **1524**
thermoelectric, materials for, inapplicability of titanates as, **2911**
Transductors, with high-impedance control-winding termination, **1691**
Transformers, a.f., design of, charts for, **67,** new materials and techniques in, **340**
coaxial-line type, construction and calibration of, **3478**
h.f., using coupled two-conductor lines, **996**
power, small, prevention of insulation ionization in, **2584**
pulse, design of, **1826**
peaking, design of, **68**
wide-band, 10-kVA, for Birmingham synchrotron, **69**
Transients, calculation of, by Tricomi's method, **2163**
response to, measurement of, c.r.o. method using spiral trace for, **2730**
in transmission systems, effect of phase-characteristic straightening on, **244**
Transistors, (See also Valves, crystal)
amplifier circuits using, **2346**
applications in telephone-system power plants, **3387**
characteristic-curve tracer for, **2180**
characteristic parameters of, impedance-matrix representation of, **3156**
quadripole representation of, **2542**
diffusion equation for, solution of, **3713**
equivalent circuits of, physical basis of, **3074**
field-effect, potential distribution over whole length of channel, **1950**
German types, characteristics and applications of, **1606**
in i.f. amplifiers, **2056**
injecting properties of emitter contacts and light spots in, **1245**
internal oscillations in, **2540, 3392, 3715**
junction, for a.f. power applications, **1247**
admittance of, bridges for measurement of, **480**
alloy, advances in, **3071,** current gain of, **1954,** Ge, high-power, **3391,** n-p-n, production and properties of, **891,** n-p-n, Si, power-handling capacity of, **3072,** p-n-p, with extended frequency range, **1955,** surface recombination rate in, **1953**
in amplifiers, **1366**
in d.c. amplifiers, **1367**
design theory of, **1244**
diffusion-type and drift type, quadripole theory of, **3389**
'drift' type, **1605**
electrolyte analogue, study of carrier flow problems by, **3073**
in experimental broadcast receiver, **2206, 3022**
frequency variation of parameters of, **2537**
gain of, effect of surface recombination and junction shape on, **2797,** variation with emitter current of, **2798**
noise in, **3393**
Transistors, n-p-n, channel effect in, influence of water vapour on, **1951**
p-n-p, noise in, **1248,** power amplifiers using, design of, **2059, 2902,** Type CK-722, amplifiers and oscillators using, **2597**
for power stages, design of, **1952**
in power supply for G-M counters, **3361**
switching time in, **2539**
symmetrical, in television synchronization circuits, **2525**
theory of, extension of, **3390**
triode, p-n-i-p and n-p-i-n, **2799**
in two-stage amplifiers, **2058**
life of, study of factors affecting, **1604**
manufacture of, R.C.A. techniques for, **284**
as mixers, **1898**
as network elements, **2026**
oscillators using, **1718**
physics of, and analogue-type of, **3600**
point-contact, in airborne radar display unit, **151**
conversion of Ge diodes to, **892**
cooling of, kerosene for, **71**
experimental local-station receivers using, **836**
Ge, p-type, h.f. operation of, **2538**
Si, forming of, **1246,** forming of, enhanced α in, **1697**
point-emitter/junction collector type, **2796**
properties of, review of, **439**
surface-barrier, circuit applications of, **692**
h.f. performance of, **894**
manufacture of, **896**
principles of, **893**
properties of metal/semiconductor contacts in, **895**
switching circuits using, **(C)659**
improvement of speed of by irradiation, **1949**
speed of response of, **2592**
temperature-compensated, d.c. amplifiers using, **2060**
temperature rise with power dissipation, determination of, **2259**
theory and application, **283, 341, 658, 1013**
time lag phenomena in, measurement of, **1516**
Type A, physical principles of, **2258**
Type OC51, in 160-m transmitter, **2254**
Transmission, a.f., terminology of, standard 54 I.R.E. 3 S1 on, **2876**
——lines, (See also Cables; Waveguides)
coaxial, conical adapters for, Brewster's angle in design of, **2852**
connectors for, experimental determination of quality of, **2460**
hyperbolic matching sections, **327**
laminated, design formulae for, **3124**
short, effect of irregularities on steady-state characteristics, **1668**
TEM waves in, analysis for, **1298**
test method based on elongation of short-duration signal, **2463**
uniform, reduction of pulse distortion by frequency translation in, **2298**
coupled, theory of, **2562**
delay, lumped-parameter, with corrected frequency characteristics, **2030**
with multilayer winding, **3157**
for pulse-frequency multiplication, **3506**
dielectric, possible modes in, **964**
graphical representation of relations between normalized impedance and reflection coefficient of, **963**
helical, attenuation and power-handling capacity of, calculation of, **1666**
coupling of modes in, **3451**
with inner coaxial conductor, **3123**
with inner and/or outer coaxial cylinders, analysis for, **2300**
with outer coaxial conductor, **621**
with high s.w.r., impedance and efficiency of, calculation of, **1294**
insertion loss, chart for, **965**
with irregularities, analysis by Kennelly method of successive reflections, **1295**
matching sections for, two-section $\lambda/4$ transformer as, **966**
metal and dielectric, survey of recent work on, **326**
microstrip, design for high-Q, **3453**
for kMc/s range, **1990**
low-loss, **1669**
properties of components made of, **1296**
parallel, coupled, waves of current without voltage in, **2851**
parallel to earth, field of, theory of, **1989**
parallel-wire, as h.f. transformer, **996**
losses in, at 150 Mc/s–1·5 kMc/s, **2311**
propagation of pulses in, calculation of attenuation and distortion for, **1297**
reflection coefficient of, circle diagram for, **626**
surface-wave, analysis for E-H wave, **1293**
corrugated, properties of, **2301**
design of, **1988**
dielectric-coated, experimental investigation of, **2849**
dielectric tubes as, **3458**
different possible types of wave near, **625**
experiments on, **623, 1665, 3122**
losses of, **3121**
stratified, theory of, **3120**
theory of, **624**
terminations in, surges at, Thévenin's equivalent circuit for study of, **3452**
theory of, application of properties of equiangular spirals in, **1667**
Transmitter-receivers, mobile, ph.m., for 70–85-Mc/s and 156–170-Mc/s bands, **2510**
portable, 28-Mc/s, for emergency use, **3358**

Transmitter-receivers, for ships' lifeboat, with kite-supported aerials, **2770**
for 160-m and 80-m bands, for telephony and c.w. operation, **530**, (C)**856**

Transmitters, (See also Television)
a.m., design problems of, **2792**
automatic tuning device for, **884**, **1600**
broadcasting, f.m., remote control of, **260**
m.f., transmission-quality tests on, **1944**
unattended, **281**
v.h.f., band III, experimental, B.B.C., **2256**
100-kW, Type BD. 253, design of, **2252**
300-kW, RIAS Berlin, parallel connection of sections in, **1943**
communication, low-power, automatic-tuning, for range 300 kc/s–26 Mc/s, **1598**
m.f., using ferrite-cored h.f. transformers, **2533**
for 4–26 Mc/s, **3386**
1-MW, for 14·5–35 kc/s, for U.S. Navy, **2791**
coupling circuits for, **3383**
f.m., v.h.f., experimental, using point-contact transistor, **1599**, Type BRT-108, for point-to-point or general use, **883**
master-oscillator power-amplifier type, design of, **1597**
medium- and high-power, air-cooling arrangements for, **2803**
output stages for, design of from valve data, **2253**
s.w., 70-kW, independent-sideband, for radio link, **882**, **2255**
telegraphy, multichannel, 3–25-Mc/s, 5-kW, **574**
using wide-band output stage, as source of cross-modulation, **3384**
twin-500-kW, long-wave, **3357**
160-m, using transistor, **2254**

Ultrasonics, applications of, determination of elastic constants, **1522**
echo-sounding equipment for special purposes, review of, **3310**
flaw detectors, improvements made at N.P.L., **3311**
medical, survey of, **2285**
nondestructive testing of materials, **3313**
cavitation noise in water, spectrum of, **2833**
dispersion, measurement of, modulation method for, **1639**
focusing device for, **2283**, **2284**
generators for, electrodynamic types, **2550**
jet-type, intensity of vibrations of, **940**
magnetostrictive, based on distributed amplifier, **3012**
in liquids, piezoelectric probes for field measurements, **2287**
pulse apparatus for measurements of absorption and phase velocity, **3108**
transmission through porous bodies, **1641**
mechanical force on obstacle, measurements of, **1273**
phase fluctuations of waves along ground, **1271**
power delivered by source, standardization of expression for, **3106**
pressure distribution in field, optical-refraction method for study of, **2288**
radiation pressure, nonisotropy at high intensity of, **2834**
recent developments in, **300**
standing waves, modulation of, **1983**
underwater scattering by liquid cylindrical obstacles, **1640**
velocity of propagation, pulse method of measurement of, **3438**
Undulators, magnetic, mm-λ, motion of electron in, **1036**, radiation from, **1037**

Vacuum gauges, ionization, cold-cathode, **3563**, cold-cathode, sorption and desorption of gas in, **427**, hot-cathode, demountable, **2954**, for pressures down to 10^{-10}mm Hg, **2955**, with range 10^{3}–10^{-4} mm Hg, **428**, of simplified construction, **2684**
McLeod, thermistor, 1–10^{-7} mm Hg, **3229**
micromanometer, for pressures down to 0·03 μ Hg, **746**
Pirani, design of, **2683**
pump, diffusion-type, gas concentration in, **3565**, portable, for pressures down to 10^{-6} mm Hg, **747**
technique, diffusion of He in glass, **3564**
gettering, influence of electron impact on rate of, **2685**
getters and gettering processes, **3566**
limiting factors on attainment of very low pressures, **2102**
Valves, (See also Cathode-ray tubes; Counter tubes; Discharge tubes; Transistors)
amplifier, resistive-wall, with crossed electric and magnetic fields, **2809**
British Standard Code of Practice CP1005 on use of, **2802**
cold-cathode, d.c. breakdown potential of, automatic tester for, **2184**
for switching in telephone systems, **1266**
control-grid currents in, **3395**
crystal, diode, in gate circuits, **74**, Ge-In, alloyed-junction, capacitance measurements on, **3069**, junction-type, switching time in, **2539**, mixers, for 20–60 kMc/s, **890**, negative resistance in, **3388**, point-contact, with carrier injection, theory of, **1239**, properties of, review of, **439**, pulsed curve tracer for, **3631**, Si p-n-junction, **2226**, theory of in light of hole injection, **2536**, time lag phenomena in, measurement of, **1516**
diode and triode, applications in telephone-system power plants, **3387**, mechanism of, **1947**
Valves, Ge-diode, double-base, switching applications of, **2535**, h.f. effects in, **1230**, in h.f. power measurement, **2166**, with injecting area contact, forward characteristic of, **1240**, junction, improving frequency response of, **3710**, low temperature coefficient as criterion in selection of, **3712**, p-n-junction type, post-injection barrier e.m.f. of, **887**, p-n-junction type, recovery currents in, **1238**, point-contact, **578**, point-contact, breakdown with pulsed voltage in, **3070**, point-contact, effect of illumination on, **2794**, point-contact, manufacture and testing of, **889**, point-contact, noise spectra of, **1602**, point-contact, reduction of noise by illumination, **1603**, point-contact, relation of thermal effects to reverse characteristic, **1242**, (C)**1948**, point contact, Siemens, use for h.f. measurements of, **1498**, point-contact, thermal characteristics of, **282**, **1241**, point-contact and alloyed-junction, flicker noise in, **3711**, point-contact and p-n-junction type, transit-time effect in, **888**, 'positive-gap', with discontinuity in characteristic, **2257**, using spherical pellets, **2795**
designation of, commercial codes for, **908**
diode, deviations from Langmuir's three-halves-power law in, **2266**
effect of V_f on I_s in, (D)**3730**
with hollow spherical cathode, characteristics of, **596**
under retarding-field conditions, transit-time effects in, **1972**
space-charge-limited, large-transit-angle, detection of microwaves by, **3096**
space-charge smoothing factor in, **909**
Type-29Cl, as voltage stabilizer, characteristics of, **595**, (D)**1260**
with unusual electrode arrangements, space-charge-limited current in, calculation of, **1973**, (C)**3095**
diodes and triodes, self-heating, **1971**
double-triode, PCC84, data and application, **1621**
effects of under-running, **680**
electrodes in, effects of slow electron bombardment in, **2263**
electron-multiplier, comparison with r.f. pentode, **594**
for high-speed pulse coincidence indication, **2822**
with space-charge deflection, comparison with other valves, **3729**
electron-wave, theory of, **3723**
filament-to-grid shorting due to shock in, theoretical investigation of, **1254**
gas-filled, power, filament connections for, **3424**
triode, control by alternating voltages, **599**
voltage-regulator, relaxation oscillations in, **864**
glow-discharge, transient response and applications of, **2828**
voltage-regulator, characteristics of, effects of ambient-temperature variations, **3422**
grid emission in, gold as inhibitor of, **1259**
heat transfer from at high altitudes, **3098**
klystron, effect of space charge on beam loading in, **2547**
megawatt-power, pulsed, design and construction of, **580**
reflex, investigation of reflection space, **3083**, Type 723 A/B, as modulator, **3180**
three-cavity, pulsed, high-power, **2548**
Type 3K20000LK, high-power, **3056**
magnetron, application of thermodynamics of irreversible processes to, (D)**375**, (D)**604**
coaxial-cylinder, study of space charge in, **3400**
c.w., effect of noise in, **579**
cylindrical, smooth-anode, instabilities in, (C)**1253**
with interdigital-structure anode, **289**
measurement of resonance frequency and effect of loading, **1851**
multicavity, strapped and unstrapped, frequency spectrum of, **3088**
planar, relativistic electron trajectories in, **288**, **3401**
rising-sun, lower wavelength limit of, **3726**
stability of, test equipment for, **2477**
theory of, **1614**, based on electron-gas statistics, **287**
travelling-wave, 'frequency pushing' and 'voltage tuning' in, **585**
Type-4J52, manufacture of, **2813**
unstrapped, mm-λ, design of anode system for, **3725**
50-W, as f.m. oscillator, **904**
manufacture of, comparison of European and U.S. methods, **3396**
electrophoresis in, **3720**
importance of physics in, **897**
use of ceramic spacers and stems in, **3404**
use of frame grid in automatic production, **3410**
microphony produced by electrode movements in, **1970**
noise in, influence of transit time on, **3412**
theory of, **3080**
oxide-cathode, aged, frequency dependence of mutual conductance of, **907**
pentode, 12-W, Type-EL 84, **602**
receiving, for industrial applications, performance of, **597**
reliability of, analysis of, **3081**
for digital computers, **984**
in military applications, **2805**
for UNIVAC computer, **647**
secondary-emission, prevention of potential minimum between emitter and control grid, **2821**
processing Ag-Mg emitters for, **2823**
wide-band amplifiers using, **367**
self-heating, with grid, as stabilizing resistance, **2824**

Valves, shock and vibration testing of, **222**
slope of characteristic, determination by time-differentiation of anode current, **482**
static- and vibration-fatigue fracture in, **3397**
subminiature, Russian, characteristics of, **2806**
Swedish SER types, review of, **3718**
switching, trochotron, comprehensive account of, **3079**
tetrode, for telephone repeaters, **1622**
thyratron, grid-controlled, low-noise, tacitron, **3732**
with screen grids, for telephone circuits, **1628**
thyratron-type, with Cs-vapour filling, **1264**
transit-time, space-charge waves in, for finite magnetic fields, **2807**
strophotron, **3398**
transmitting, high-power, industrial, with Th-W filaments, **2814**
life of, factors affecting, **3717**
travelling-wave, a.c. energy and power flow in beam of, **3082**
analysis for helix with cylindrical outer conductor, **1617**
application of perturbation theory to, **2808**
backward-wave, analysis for, **2812,** with bifilar helix, **3089,** using hairpin-type interdigital waveguide section, **588,** helix impedance in, **3399,** as oscillator, **587,** with wide-band electronic tuning, **586**
calculation of beam current in, **903**
coaxial-to-helix matching sections for, **1616**
coupling of modes in helix of, **3451**
elimination of secondary electrons in, **581**
excitation of space-charge waves in, **583**
features and operating principles of various types, **3086**
with ferrite attenuators, **3092**
filter-helix, **1963**
gain of, effect of thermal motion of electrons on, **(D)1960,** influence of line attenuation on, **1615**
gain and saturation characteristics in relation to attenuator characteristics, **1962**
helix impedance of, **584,** measurement of, **1965**
interdigital structures for, theory of, **3087**
low-noise, with single velocity jump, **905**
with magnetically focused beam, theory of, **1964**
measurement of nonuniformity of beam in, **582**
mechanical model demonstrating operation of, **3093**
medium-power, for 2-kMc/s band, **3090**
noise in, theory of, **3722**
noise figure of, **3402**
theory of, **3085**
use of multiple-magnetic-lens focusing system for, **2262**
wide-band, as power mixer, **1961,** transmission-line-type, theory and design of, **902**
travelling-wave and klystron, noise factor of, **1618**
triode, amplification factor of, formulae for, **3413**
characteristics of, calculation of, **2267,** variations of with heater-voltage changes, **598**
disk-seal, 6BA4, as u.h.f. amplifier, **910**
gas-filled, control by very small currents, **1351**
noise performance of, **369**
transmitting, v.h.f., air-cooled, BTL-type, **2826**
twin, miniature, reliable, **1974**
triode and tetrode, a.f. noise in, measurements of, **2825**
for coaxial-cable system, optical techniques for inspecting, **3415**
limiting sensitivity of, equivalent noise conductance in determination of, **3414**
v.h.f., transmitting, radiation-cooled, **3416**
tuning-indicator, subminiature, Types DM 70 and DM 71, **600**
survey of, **899**
two-streak, for voltage indication, **798**
Types PCC84 double triode and PCF 80 triode pentode, for television tuners for Bands I and III, **3417**
Types 6AK5 and 5654, comparison of in shock and vibration tests, **2804**
u.h.f., French developments in, **901, 3084**
long-beam, focusing to produce periodic magnetic field, **2546** for television receivers, comparison of, **2526**
vacuum in, method of testing, **3719**
v.m., with velocity step, amplification of, **3721**

Velometry, e.m., **2734**

Vibrations, mechanical, acoustic method for measuring amplitude of, **3011**
of plates, **1631**
effect of damping layer on, **948**

Voltage, adjustment to desired level, using tuning-indicator-type valve, **798**
alternating, < 10 mV, measurement of, barrier-layer rectifiers for, **1501**
direct, low, moving-coil compensator for recording, **1512**
dividers, with logarithmic characteristics, use of semiconductor rectifiers in, **2879**
high, measurement of small changes in, **3292**

Voltmeters. See Meters.

Volume control, automatic, a.f., survey of systems, **1724,** signal-level-operated, **2349**
standard volume indicator, I.R.E. standard on terms relating to, **2461**

Wave propagation, acoustic. See Sound and Ultrasonics.
in stratified media, comprehensive analysis of, **1371**

Wave propagation, e.m., (See also Diffraction; Field strength; Reception; Reflection; Scattering; Television; Transmission lines; Waveguides; Waves)
auroral absorption zone, **3224**
backscatter frequency-sweep observations, **3019**
backscatter frequency-sweep records, **2495**
in dispersive media, energy propagation and group velocity in, **3663**
effect of radiation condition in case of complex wave number, **1162**
fading, due to atmospheric-refraction effects, at mm-λ, **1554**
due to ground reflections, at 4 kMc/s, **3341**
selective, at frequencies around 4 kMc/s, statistical study of, **236**
severe, in 6·7-kMc/s range, causes of, **2219**
short-period, due to turbulence in ionosphere, **512, 2752**
statistical analysis of, at s.w., **513**
at 100 Mc/s, **2754**
at 4 kMc/s, Japanese investigation of, **3669**
field strength, in diffraction zone, at v.h.f., **2753**
for troposphere and ionosphere paths, statistical distribution of, **3020**
ground-wave, field-strength calculation by equivalent conductivity method, **3340**
field-strength curves for 150 kc/s to 10 Mc/s, **235**
survey of conditions in S. Africa for, **3342**
group velocity in, **2370**
guided, coupling of modes in, general theory of, **1987**
in ionized gas, equations for, **1038**
ionospheric, analysis of, **2196,** taking account of earth's curvature, **2199**
analysis of 'coupled' form of equations for, **3017**
conditions for triple splitting in, **1166**
cross-modulation in, effect of earth's magnetic field in, **2496**
and in crystals, double refraction in, **2198**
over distances > 10000 km, prediction of, **830**
effect of ions on characteristic polarization in, **504**
effect of nonlinearity of medium on, **2749**
forecasts for, accuracy of various methods, **2493,** Spanish method for, **3664,** at 9·15 Mc/s, over 800-km path, comparison with observations, **1547**
gyro-interaction, alternative theories of, **231,** resonance curves for, **1168,** resonance curves for vertically incident waves, **1546**
moon echoes, fading of, **2748**
polarization data, **1886**
'radio weather' criterion for, **3665**
self-demodulation in, **1167**
skip distance, scatter-sounding methods for studying, **1888**
s.w., fading patterns in, **3021,** scattered reflections in, **3667**
s.w. transmission paths, effect of geomagnetic field on, **508**
triple refraction in, **1549**
v.h.f., long-distance scatter, and atmospheric electricity, **2497**
at 30–65 kc/s, over short distances, **2200**
at 16–85 kc/s, over short distances, **1551**
magneto-ionic theory of, formulation of, **1887**
in media with random nonuniformities, **2746**
via meteor trails, investigation of possibilities for h.f. and v.h.f., **1884**
microwave, diffracting effect of hills in, parabolic-cylinder theory of, **2197**
effect of oceanic ducts on, **233, 1552**
m-, dm- and cm-λ, long-distance, **1891**
modulation of signals in aurora, **832**
in moving medium, vector modifications for, **1742**
N.B.S. research on, **3018**
in periodic structures, **3723**
reflections from aurora, at h.f., **3223**
at v.h.f., **3222**
Sommerfeld's surface waves, saddle-point method of analysis of, **3662**
s.w., angle-of-arrival measurements, review of, **1890**
tropospheric, at cm λ, in ducts, field strength in, **1165**
at mm and cm λ, atmospheric attenuation of, **1894**
review of knowledge on, **1548, 1885**
symposium on, **503**
Texas conference on radio meteorology, Nov. 1953, **230, 2751**
u.h.f., Cheyenne Mountain tests, fading observations in, **2499**
u.s.w., increase of field strength due to inversion, **833,** influence of troposphere on, **(C)834**
50–800-Mc/s, basic characteristics of, **(A)2492, 3338**
at 100 and 600 Mc/s, field-strength survey of, **(A)2492, 3339**
in two-dimensional lattice, **1743**
u.h.f. and v.h.f., surveying technique for multichannel links, **234, 1553**
u.s.w., extended-range, observations in North-West Germany, **2201**
within line of sight, optical model for investigating, **1892**
survey of current problems of, **3666**
v.h.f., diffracting effects of mountains in, **2494**
long-distance, maximum usable frequency bandwidth for, **510**
records of, **509**
in Mediterranean, tests on, **1893**
and prediction of likelihood of interference, **2204**
and television service planning, **2234**
on 60–72 Mc/s, abnormally-long-range, **1164**
of very long waves, and atmospherics, **1545**
harmonic fields in, and lightning, **1544**
use of atmospherics in study of, **232**
for $\lambda > 3$ km, higher-order modes in, **2195**

Wave propagation, e.m., over 4009-km path between Washington and Resolute Bay, m.u.f.s and l.u.f.s for, **1889**
Waveguides, (See also Transmission lines)
with absorbent walls, field in, analysis of, **1993**
containing anisotropic media, Faraday rotation in, **1300**
attenuation in, standing-wave method for accurate determination of, **802**
circular, diffraction of plane e.m. wave by, **1020**
elliptical-vibration analyser for, **1500**
filled with gyromagnetic medium, propagation in, **2563, 3129**
with gap, propagation in, **2854**
H_{01}-mode propagation in, influence of ellipticity and bends on, **627**
irises with annular slots in, properties of, **1672**
power transmission and multichannel communication along, **15**
propagation of pulses in, analysis for, **2306**
time constant of, **3127**
with circular irises, attenuation of, **2856**
pass-band dispersion of, **2302**
with corrugated wall, propagation in, theory of, **2853**
cylindrical, metallic, with two dielectrics, propagation in, **328, 1670, 1671, 1992, 2855**
TEM waves in, analysis for, **1298**
with diaphragms, calculations for, **3128**
dielectric-tube, theory of, **3458**
gyrotropic, theory of, **2564**
impedance of, measurement of, **2172**
junctions for, coaxial-line magic-T, **1694**
multiport, graphical analysis of measurements on, **1673**
reflection coefficients of, graphical method for determining, **14**
two-port, graphical analysis for, **(D)3456**
between waveguides of different types, experimental procedure for, **330**
junctions and directional couplers for, design of, using short-circuit pistons, **2850**
lightweight, manufacture of, U.S. Air Force methods of, **3130**
magnetron-output, diaphragms with ceramic windows for sealing and coupling, **2307, 2857**
with nonuniform dielectric, analysis for, **3457**
radar components using, testing of, **2476**
rectangular, with bends, matrix theory for propagation in, **968, (C)1674**
characteristic impedance of, definition of, **3131**
with discontinuities, reflection in, **628**
flexible, low-attenuation, attenuators for measurements on, **3008**
junctions for, theory of, **3454**
with longitudinal load, computation of dimensions and characteristics of, **2303**
modification of field due to thin wire in, **329**
Ni and mild-steel, attenuation in at 9·375 kMc/s, **1299**
rotary junctions for, low-s.w.r., **629**
slotted sections for measurements, calibration of, **2169**
Waveguides, standards on definitions, 53 I.R.E. 2S1, **631**
termination for, reflectionless, **2305**
theory of, direct derivation from Maxwell's equations of, **1991**
with thin internal dielectric film, transmission losses in, **2304**
velocity of energy in, **967**
windows for, wide-band, design of, **3455**
Wavemeters, for 12·5-mm λ, using cavity resonator, **483**
Waves, (See also Diffraction; Sound; Transmission lines, surface-wave; Ultrasonics)
damped, identity leading to solution of Kirchhoff's problem for, **120**
e.m., amplification in solar atmosphere, **1400,** equations for, **1401**
produced by explosions, **1741**
measurements on, anechoic chamber for, **942**
at microwave frequencies, produced by Cherenkov radiation, **1392**
quantum-theory interpretation of, **3185**
surface, Zenneck, possibility of existence of, **1543**
velocity, determination by interferometer at 24 kMc/s, **3016**
magnetohydrodynamic, in liquid Na, **2926**
Wires, fine, electrolytic polishing process for production of, **1842**

U.D.C. CHANGES

Cross-modulation 621.396.11 : 551.510.535

Changes in U.D.C. numbers resulting from the extensions proposed in PE Notes 518, 519 and 535 and now adopted (See January 1954 abstracts) are too numerous to list in full, but a few of the main numbers are appended below to indicate the extent of the changes.

Amplifiers 621.375
Demodulation 621.376
Generators of electric oscillations and pulses 621.373
Modulation 621.376
Networks 621.372.4/.6
Pulse processes 621.374
Radar 621.396.96
Transmission-line theory 621.372.2
Waveguides 621.372.8

ERRATA

In " Abstracts and References " throughout the year

Abstract No. 1257 In title for 'Zirconium' read 'Zirconia'.
" " 1289 For '631.395.625.3' read '621.395.625.3'.
" " 1546 Change U.D.C. number to 621.396.11 : 551.510.535.
" " 2132 For 'J. R. Johnson' read 'J. B. Johnson'.
" " 2423 For 'R. N. Decker' read 'R. N. Dexter'.
" " 2496 Change U.D.C. number to 621.396.11: 551.510.535
" " 2749 Change U.D.C. number to 621.396.11: 551.510.535.
" " 2870 For 'L. Tourel' read 'L. Thourel'.
" " 2990 For 'R. H. Pohl' read 'R. G. Pohl'.

LIST OF JOURNALS

A selection of the journals which are regularly scanned is given below, together with the addresses of their publishers or editorial offices and the abbreviations of their titles as used in the Abstracts and References. Applications for copies of any journal should be made to the addresses given.

The full title of each journal is given in bold type and is followed by the address, the abbreviated title being shown within brackets. In a few cases the nature of a journal is indicated, where neither the title nor the address shows it clearly.

Acta physica austriaca, Springer Verlag, Wien I, Mölkerbastei 5, Austria. (*Acta phys. austriaca*)
Acta Polytechnica, Royal Swedish Academy of Engineering Sciences, Stockholm, Sweden. (*Acta polyt., Stockholm*)
Acustica, S. Hirzel Verlag, Gotthardstrasse 6, Zürich, Switzerland. (*Acustica*)
Advances in Physics, Taylor & Francis Ltd, Red Lion Court, Fleet Street, London, E.C.4, England. (*Advances Phys.*)
Akustische Beihefte, S. Hirzel Verlag, Gotthardstrasse 6, Zürich, Switzerland. (*Akust. Beihefte*)
Alta Frequenza, Associazione Elettrotecnica Italiana, Milano (202), Via S. Paolo 10, Italy. (*Alta Frequenza*)
Annalen der Physik, J. A. Barth, Leipzig C 1, Salomonstrasse 18B, Germany. (*Ann. Phys., Lpz.*)
Annales de Géophysique, Service des Publications du C.N.R.S., 45 rue d'Ulm, Paris 5e, France. (*Ann. Géophys.*)
Annales de Physique, Masson & Cie, 120 Boulevard Saint-Germain, Paris 6e, France. (*Ann. Phys., Paris*)
Annales de Radioélectricité, 10 rue Carducci, Paris 19e, France. (*Ann. Radioélect.*)
Annales des Télécommunications, 3 & 5 Boulevard Pasteur, Paris 15e, France. (*Ann. Télécommun.*)
Annali di Geofisica, Istituto Nazionale di Geofisica, Città universitaria, Roma, Italy. (*Ann. Geofis.*)
Applied Scientific Research, Martinus Nijhoff, Lange Voorhout 9, The Hague Netherlands. (*Appl. sci. Res.*)
Archiv der elektrischen Übertragung, S. Hirzel Verlag, Stuttgart, Germany. (*Arch. elekt. Übertragung*)
Archiv für Elektrotechnik, Springer Verlag, Heidelberg, Neuenheimer Landstrasse 24, Germany. (*Arch. Elektrotech.*)
Archiv für Meteorologie Geophysik und Bioklimatologie, Series A, Springer Verlag, Wien I, Mölkerbastei 5, Austria. (*Arch. Met., Wien*)
Archiv für technisches Messen, R. Oldenbourg Verlag, München, Lotzbeckstrasse 2b, Germany. (*Arch. tech. Messen*)
Arkiv för Fysik, published for Royal Swedish Academy of Sciences by Almqvist & Wiksells Boktryckeri A. B., Stockholm, Sweden. (*Ark. Fys.*)
A.T.E. Journal (incorporating Strowger Journal), Automatic Telephone & Electric Co., Strowger Works, Liverpool 7, England. (*A.T.E. J.*)
Audio (formerly **Audio Engineering**), 204 Front Street, Mineola, N.Y., U.S.A. (*Audio*)
Australian Journal of Applied Science, Commonwealth Scientific and Industrial Research Organization, 314 Albert Street, East Melbourne C.2, Australia. (*Aust. J. appl. Sci.*)
Australian Journal of Physics, Commonwealth Scientific and Industrial Research Organization, 314 Albert Street, East Melbourne C.2, Australia. (*Aust. J. Phys.*)
A.W.A. Technical Review, Amalgamated Wireless (Australasia) Ltd, Sydney, Australia. (*A.W.A. tech. Rev.*)

B.B.C. Quarterly, British Broadcasting Corporation, 35 Marylebone High Street, London, W.C.2, England. (*B.B.C. Quart.*)
Beama Journal, British Electrical and Allied Manufacturers' Association, 36 Kingsway, London, W.C.2, England. (*Beama J.*)
Bell Laboratories Record, 463 West Street, New York 14, N.Y., U.S.A. (*Bell Lab. Rec.*)
Bell System Technical Journal, American Telephone and Telegraph Company, 195 Broadway, New York 7, N.Y., U.S.A. (*Bell Syst. tech. J.*)
British Journal of Applied Physics, 47 Belgrave Square, London, S.W.1, England. (*Brit. J. appl. Phys.*)
Brown Boveri Review, Baden, Switzerland. (*Brown Boveri Rev.*)
Bulletin de l'Académie des Sciences de l'U.R.S.S., (*a*) série physique, (*b*) série géophysique, (*c*) classe sciences techniques, Academy of Sciences, Moscow, U.S.S.R. (In Russian.) (*Bull. Acad. Sci. U.R.S.S.*: (*a*) *sér. phys.*, (*b*) *sér. géophys.*, (*c*) *tech. Sci.*)
Bulletin de l'Association suisse des Électriciens, S.A. Fachschriften-Verlag und Buchdruckerei, Stauffacherquai 36–40, Zürich 4, Switzerland. (*Bull. schweiz. elektrotech. Ver.*)
Bulletin de la Société française des Électriciens, 55 Quai des Grands-Augustins, Paris 6e, France. (*Bull. Soc. franç. Élect.*)

Câbles et Transmission, Sotelec, 16 rue de la Baume, Paris 8e, France. (*Câbles & Transm.*)
Canadian Journal of Physics, National Research Council, Ottawa 2, Canada. (*Canad. J. Phys.*)
Chalmers tekniska Högskolas Handlingar, N.J. Gumperts Förlag, Göteborg, Sweden. (*Chalmers tek. Högsk. Handl.*)
Communication News, Philips Telecommunications Industries, Hilversum, Netherlands. (*Commun. News*)
Communications on Pure and Applied Mathematics, Interscience Publishers Inc., 250 Fifth Avenue, New York 1, N.Y., U.S.A. (*Commun. pure appl. Math.*)
Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences, Gauthier-Villars, 55 Quai des Grands-Augustins, Paris 6e, France. (*C.R. Acad. Sci., Paris*)
Comptes Rendus (Doklady) de l'Académie des Sciences de l'U.R.S.S., Academy of Sciences, Moscow, U.S.S.R. (In Russian.) (*C.R. Acad. Sci. U.R.S.S.*)

Electrical Communication, International Telephone and Telegraph Corporation, 67 Broad Street, New York 4, N.Y., U.S.A. (*Elect. Commun.*)
Electrical Engineering, Journal of the American Institute of Electrical Engineers, 500 Fifth Avenue, New York 36, N.Y., U.S.A. (*Elect. Engng, N.Y.*)
Electrical Journal, Bouverie House, 154 Fleet Street, London, E.C.4, England. (*Elect. J.*)
Electrical Manufacturing, 1250 Sixth Avenue, New York 20, N.Y., U.S.A. (*Elect. Mfg*)
Electrical Times, Sardinia House, Sardinia Street, London, W.C.2, England. (*Elect. Times*)
Electronic Engineering, 28 Essex Street, London, W.C.2, England. (*Electronic Engng*)
Electronics, 99–129 North Broadway, Albany 1, N.Y., U.S.A. (*Electronics*)
Elektrotechnik und Maschinenbau, Journal of the Elektrotechnischer Verein Österreichs, Springer Verlag, Wien I, Mölkerbastei 5, Austria. (*Elektrotech. u. Maschinenb.*)
Elektrotechnische Zeitschrift, Edition A & B, VDE-Verlag, Wuppertal-Elberfeld, Brillerstrasse 99, Germany. (*Elektrotech. Z.*)
Endeavour, Imperial Chemical Industries, Millbank, London, S.W.1, England. (*Endeavour*)
Engineer, 28 Essex Street, London, W.C.2, England. (*Engineer, Lond.*)
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Ericsson Review, Telefonaktiebolaget L. M. Ericsson, Stockholm 32, Sweden. (*Ericsson Rev.*)

Fernmeldetechnische Zeitschrift, Vieweg & Sohn, Braunschweig, Burgplatz 1, Germany. (*Fernmeldetech. Z.*)
Frequenz, Verlag Schiele & Schön, Berlin S.W. 29, Boppstrasse 10, Germany. (*Frequenz*)
Funk und Ton, Verlag für Radio-Foto-Kinotechnik G.m.b.H., Berlin-Borsigwalde, Eichborndamm 141–167, Germany. (*Funk u. Ton*)

G.E.C. Journal, General Electric Company Ltd, Magnet House, Kingsway, London, W.C.2, England. (*G.E.C. J.*)
G.E.C. Telecommunications, General Electric Company Ltd, Coventry, England. (*G.E.C. Telecommun.*)
General Electric Review, General Electric Company, 1 River Road, Schenectady 5, N.Y., U.S.A. (*Gen. Elect. Rev.*)
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Helvetica Physica Acta, Journal of the Société suisse de Physique, Editions Birkhäuser, Bâle 10, Switzerland. (*Helv. phys. Acta*)

Indian Journal of Physics, (and Proceedings of the Indian Association for the Cultivation of Science), 210 Bowbazer Street, Calcutta, India. (*Indian J. Phys.*)

Journal of the Acoustical Society of America, American Institute of Physics, 57 East 55th Street, New York 22, N.Y., U.S.A. (*J. acoust. Soc. Amer.*)
Journal of Applied Physics, American Institute of Physics, 57 East 55th Street, New York 22, N.Y., U.S.A. (*J. appl. Phys.*)
Journal of Atmospheric and Terrestrial Physics, Pergamon Press Ltd, 242 Marylebone Road, London, N.W.1, England. (*J. atmos. terr. Phys.*)
Journal of the Audio Engineering Society, P.O. Box 12, Old Chelsea Station, New York 11, N.Y., U.S.A. (*J. audio Engng Soc.*)
Journal of the British Institution of Radio Engineers, 9 Bedford Square, London, W.C.1, England. (*J. Brit. Instn Radio Engrs*)
Journal of the Franklin Institute, Benjamin Franklin Parkway at Twentieth Street, Philadelphia 3, Pa, U.S.A. (*J. Franklin Inst.*)
Journal of Geomagnetism and Geoelectricity, Society of Terrestrial Magnetism and Electricity of Japan, Geophysical Institute, Kyoto University, Kyoto, Japan. (*J. Geomag. Geoelect.*)
Journal of Geophysical Research, 5241 Broad Branch Road, N.W., Washington 15, D.C., U.S.A. (*J. geophys. Res.*)
Journal of the Indian Institute of Science, Indian Institute of Science, Bangalore 3, India. (*J. Indian Inst. Sci.*)
Journal of the Institute of Navigation, John Murray Ltd, 50 Albemarle Street, London, W.1, England. (*J. Inst. Nav.*)
Journal of Mathematics and Physics, Massachusetts Institute of Technology, Cambridge 39, Mass., U.S.A. (*J. Math. Phys.*)
Journal of the Optical Society of America, American Institute of Physics, 57 East 55th Street, New York 22, N.Y., U.S.A. (*J. opt. Soc. Amer.*)
Journal of the Physical Society of Japan, Maruzen Publishing Co., P.O. Box 605 Central, Tokyo, Japan. (*J. phys. Soc. Japan*)
Journal de Physique et le Radium, 12 place Henri-Bergson, Paris 8e, France. (*J. Phys. Radium*)
Journal of Research of the National Bureau of Standards, U.S. Government Printing Office, Washington 25, D.C., U.S.A. (*J. Res. nat. Bur. Stand.*)
Journal of Scientific Instruments, 47 Belgrave Square, London, S.W.1, England. (*J. sci. Instrum.*)
Journal of the Society of Motion Picture and Television Engineers, 40 West 40th Street, New York 18, N.Y., U.S.A. (*J. Soc. Mot. Pict. Televis. Engrs*)
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Metal Industry, Louis Cassier Company Ltd, Dorset House, Stamford Street, London, S.E.1, England. (*Metal Ind., Lond.*)
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Metallurgia, 31 King Street West, Manchester 3, England. (*Metallurgia, Manchr*)
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Proceedings of the Institute of Radio Engineers, 1 East 79th Street, New York 21, N.Y., U.S.A. (*Proc. Inst. Radio Engrs*)
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Proceedings of the National Electronics Conference, 84 East Randolph Street, Chicago, Illinois, U.S.A. (*Proc. nat. Electronics Conf., Chicago*)
Proceedings of the Physical Society, 1 Lowther Gardens, Prince Consort Road, London S.W.7, England. (*Proc. phys. Soc.*)
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